ACOUSTICS REFERENCE MANUAL

MASS TIMBER CONSTRUCTION

REGUPOL

TABLE OF CONTENTS

REGUPOL

TABLE OF CONTENTS

Acoustic Design for Mass Timber Construction

Introduction

The demand for mass timber construction has increased significantly in recent years due to its numerous benefits, including sustainability, strength, faster construction times, cost savings, and a natural wood aesthetic. However, a major drawback of mass timber construction is its poor acoustic performance.

Sound Ratings for Mass Timbers

This table illustrates that the baseline STC and IIC ratings for **cross-laminated timber (CLT)**, **glue-laminated timber (GLT)**, **dowel-laminated timber (DLT)**, **nail-laminated timber (NLT)**, and **mass plywood panels (MPP)** are far below the building code minimums.

CLT Thickness	STC	IIC
3 ply	38	22
5 ply	40	28
7 ply	41	28
9 ply	44	30

GLT Thickness	STC	IIC
3½"	38	22

DLT Thickness	STC	IIC
6"	38	33

NLT Thickness	STC	IIC
6" + ½" plywood	34	32

MPP Thickness	STC	IIC
5"	37	26

CONCRETE SLAB SURFACE

3 ply 105mm CLT PRODUCT COMPARISON

3” Concrete slab over Sonus curve

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. Made in the USA from recycled cars & truck tires are green circle certified for recycled content and qualify for up to 8 LEED points.

Detail	Assembly	Acoustic Rating	
	Concrete slab 3” **sonus curve 17, (17 mm)** CLT – 3 ply 105mm	**IIC 48** **LIIC 59** **HIIC 49**	STC 55
	Concrete slab 3” **sonus curve 25, (25 mm)** CLT – 3 ply 105mm	**IIC 50** **LIIC 61** **HIIC 50**	STC 55
	Concrete slab 3” **sonus curve 50, (50 mm)** CLT – 3 ply 105mm	**IIC 51** **LIIC 54** **HIIC 51**	STC 59

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.05			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Concrete, 3" (76 mm) REGUPOL sonus curve 17, 21/32" (17 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 55	IIC 48	LIIC 59	HIIC 49
Detail				

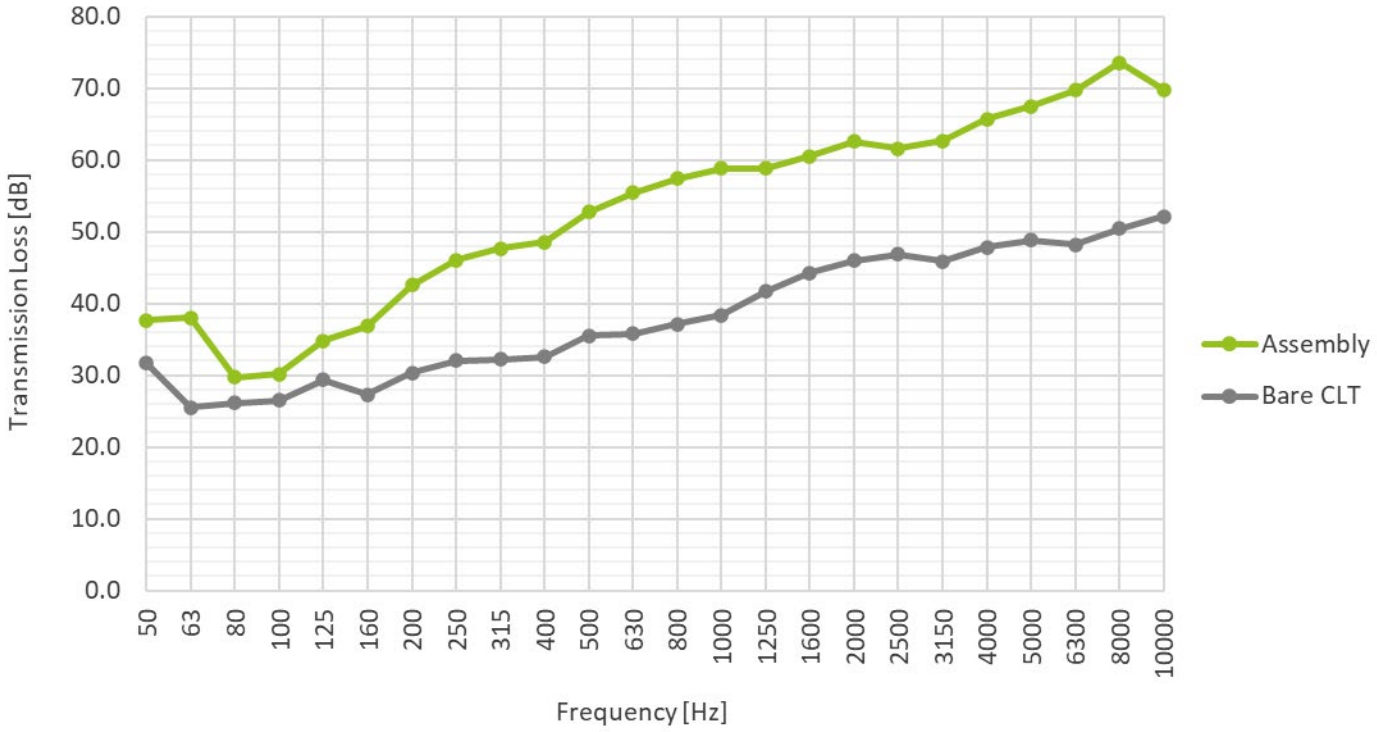
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

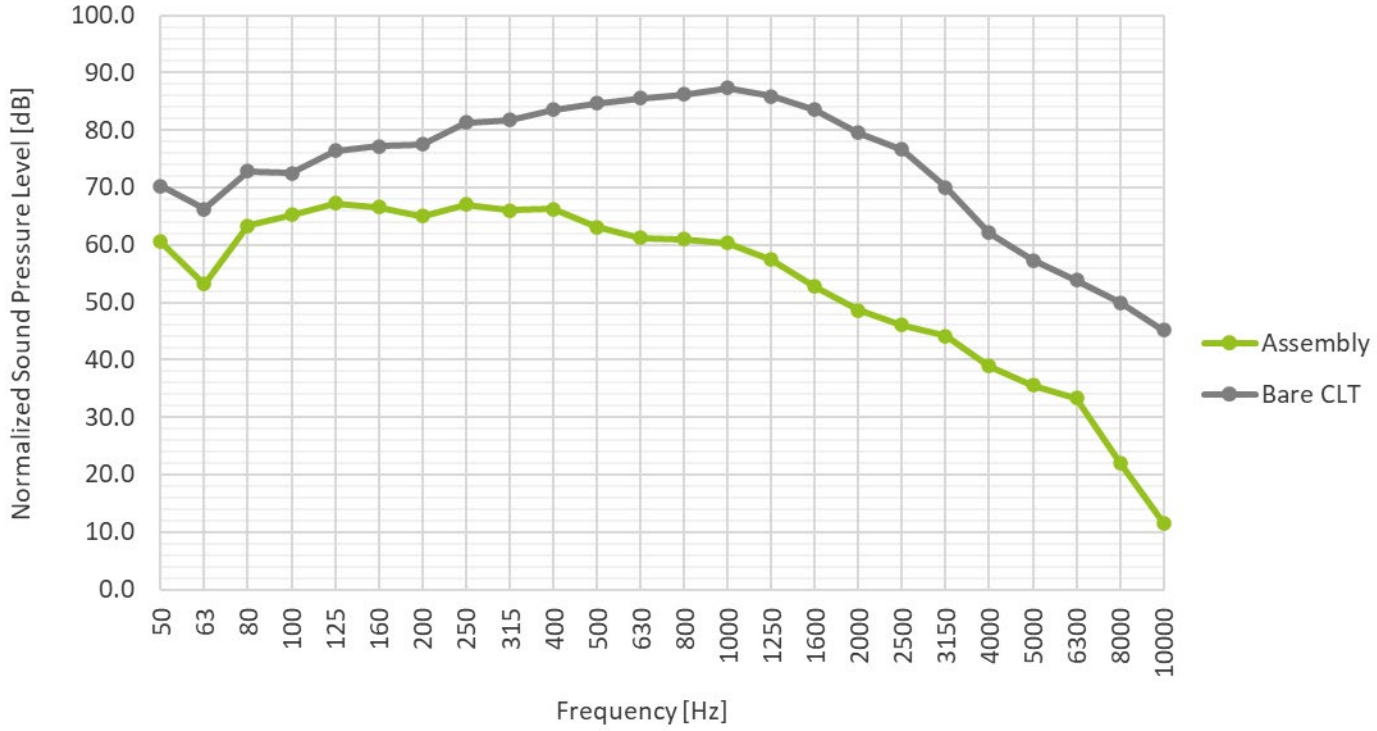
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.05			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 17**, 3" Concrete			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	37.7	-	60.6	-
63	38.0	-	53.2	-
80	29.7	-	63.3	-
100	30.2	-	65.3	1
125	34.8	4	67.3	3
160	36.9	5	66.6	3
200	42.6	2	65.0	1
250	46.1	2	67.0	3
315	47.7	3	66.0	2
400	48.6	5	66.3	3
500	52.8	2	63.1	1
630	55.4	1	61.2	0
800	57.4	0	61.0	1
1000	58.8	0	60.3	1
1250	58.8	0	57.4	1
1600	60.5	0	52.8	0
2000	62.6	0	48.6	0
2500	61.6	0	46.0	0
3150	62.7	0	44.2	0
4000	65.7	0	38.9	-
5000	67.5	-	35.5	-
6300	69.7	-	33.3	-
8000	73.6	-	22.1	-
10000	69.8	-	11.6	-
Ratings	**STC 55**	**24**	**IIC 48**	**20**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.01			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Concrete, 3” (76 mm) REGUPOL sonus curve, 1" (25 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 55	IIC 50	LIIC 61	HIIC 50
Detail				

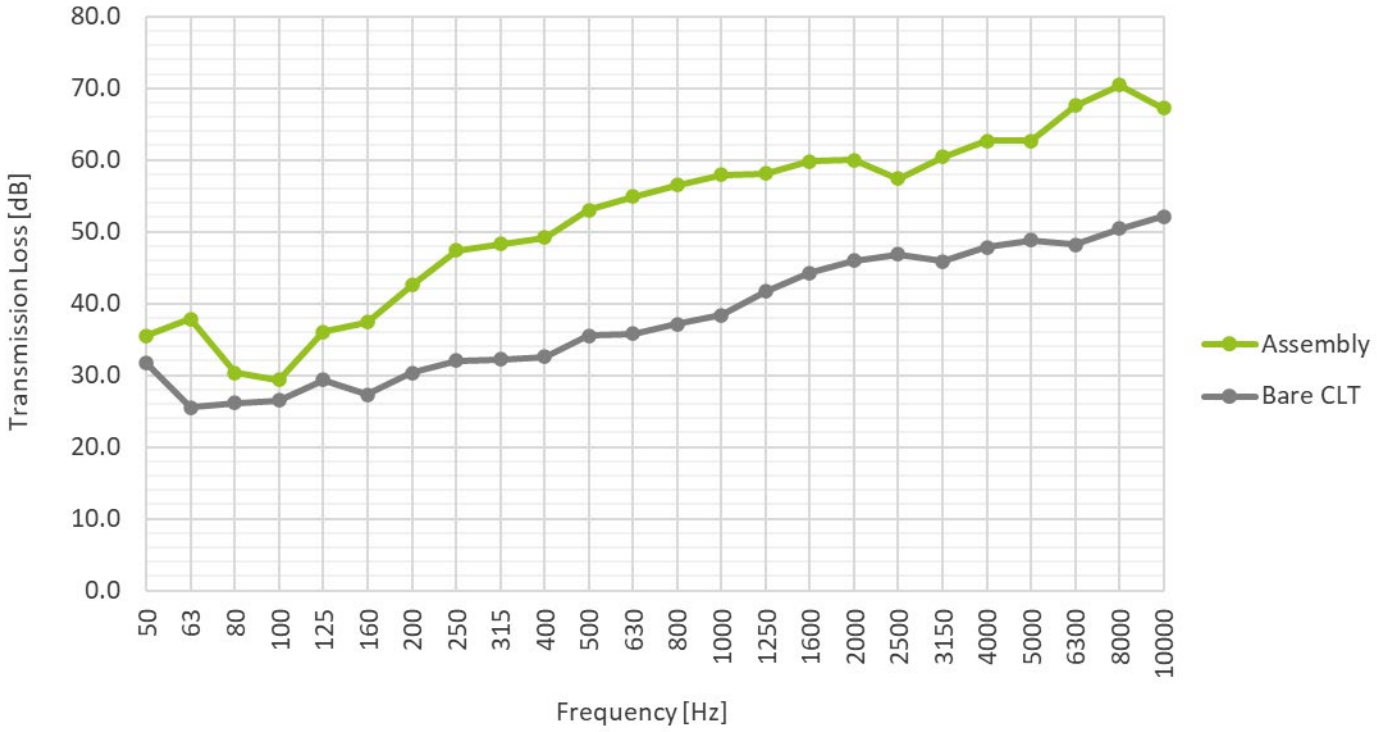
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

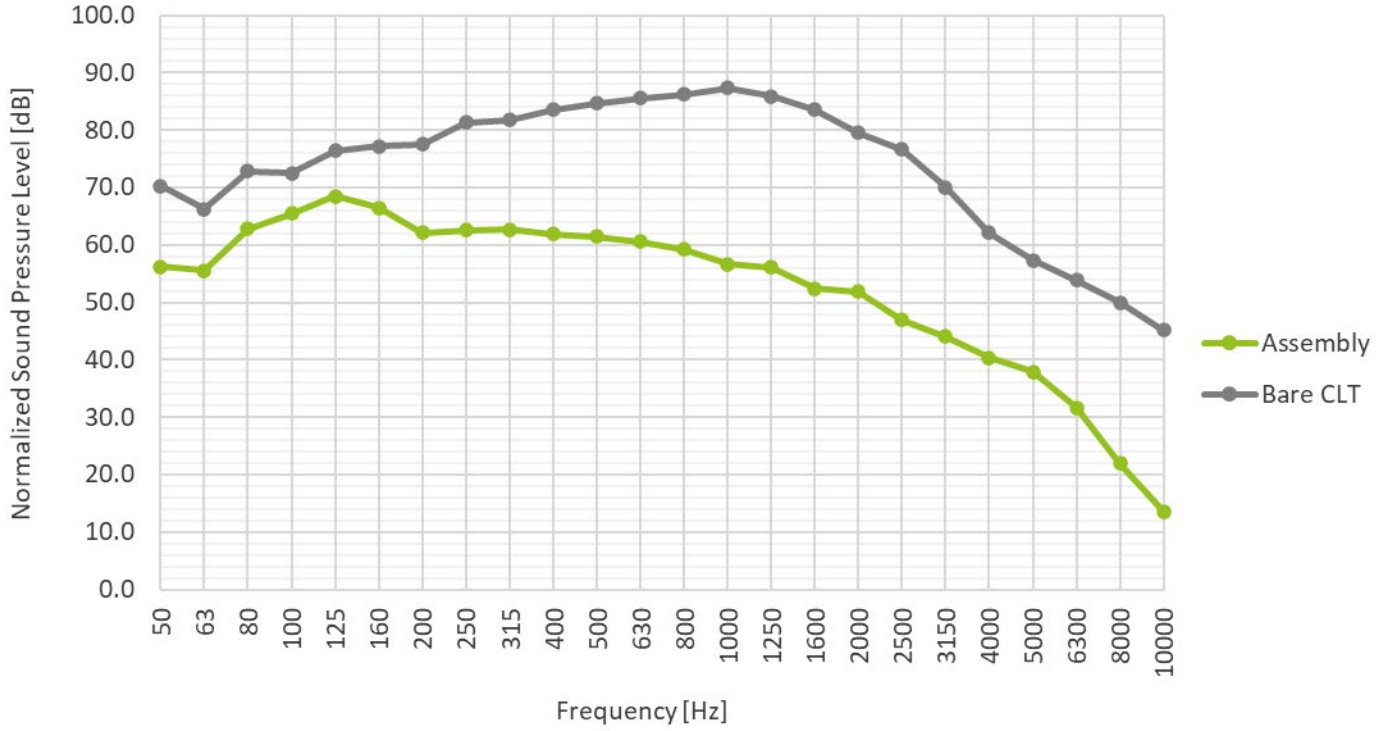
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.01			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 25**, 3" Concrete			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	35.5	-	56.2	-
63	37.8	-	55.5	-
80	30.3	-	62.8	-
100	29.4	-	65.5	3
125	36.1	3	68.5	6
160	37.4	5	66.5	4
200	42.6	2	62.1	0
250	47.4	1	62.6	1
315	48.3	3	62.7	1
400	49.2	5	61.9	1
500	53.0	2	61.4	1
630	54.9	1	60.6	2
800	56.5	0	59.2	1
1000	57.9	0	56.7	0
1250	58.1	1	56.1	2
1600	59.8	0	52.4	1
2000	60.0	0	51.9	4
2500	57.4	2	46.9	2
3150	60.4	0	44.0	2
4000	62.7	0	40.3	-
5000	62.7	-	37.9	-
6300	67.6	-	31.6	-
8000	70.4	-	21.9	-
10000	67.2	-	13.6	-
Ratings	**STC 55**	**25**	**IIC 50**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.09			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Concrete, 3" (76 mm) REGUPOL sonus curve 50, 2" (50 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 59	IIC 51	LIIC 54	HIIC 51
Detail				

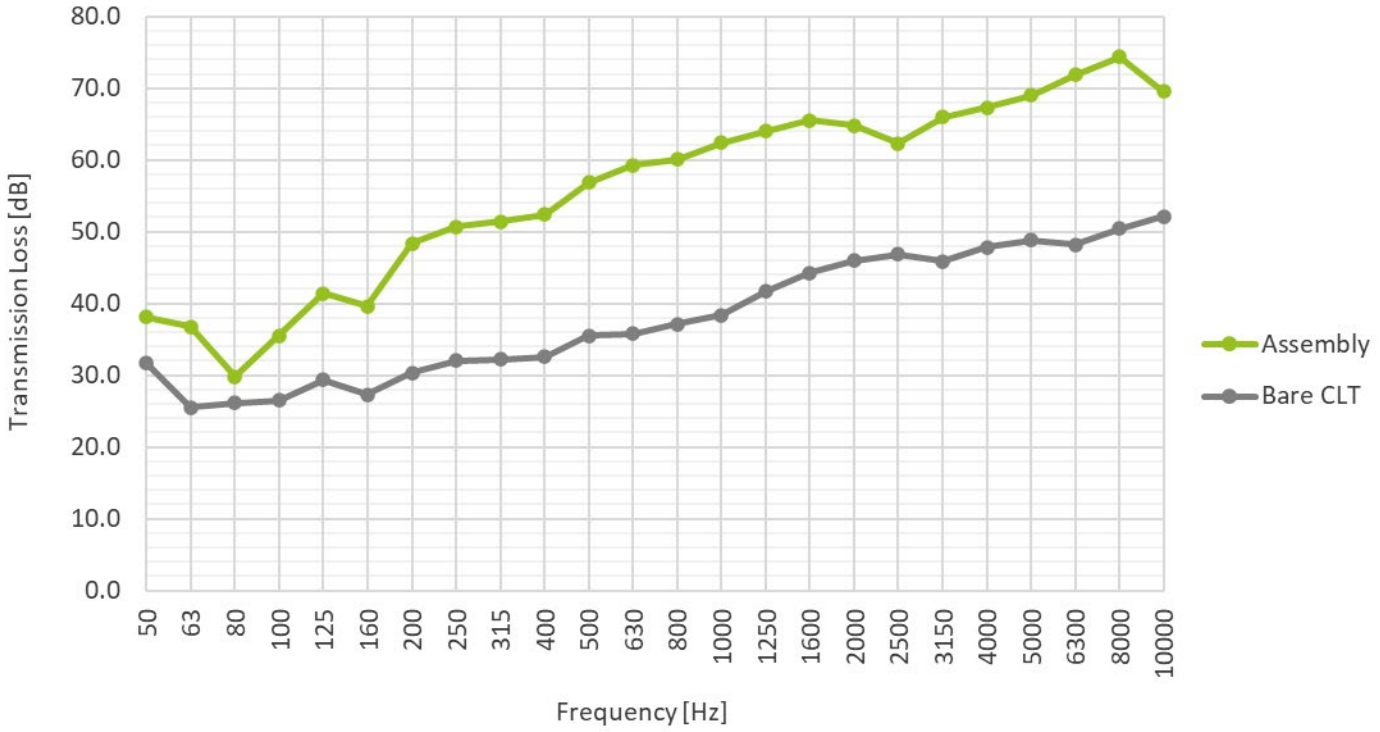
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

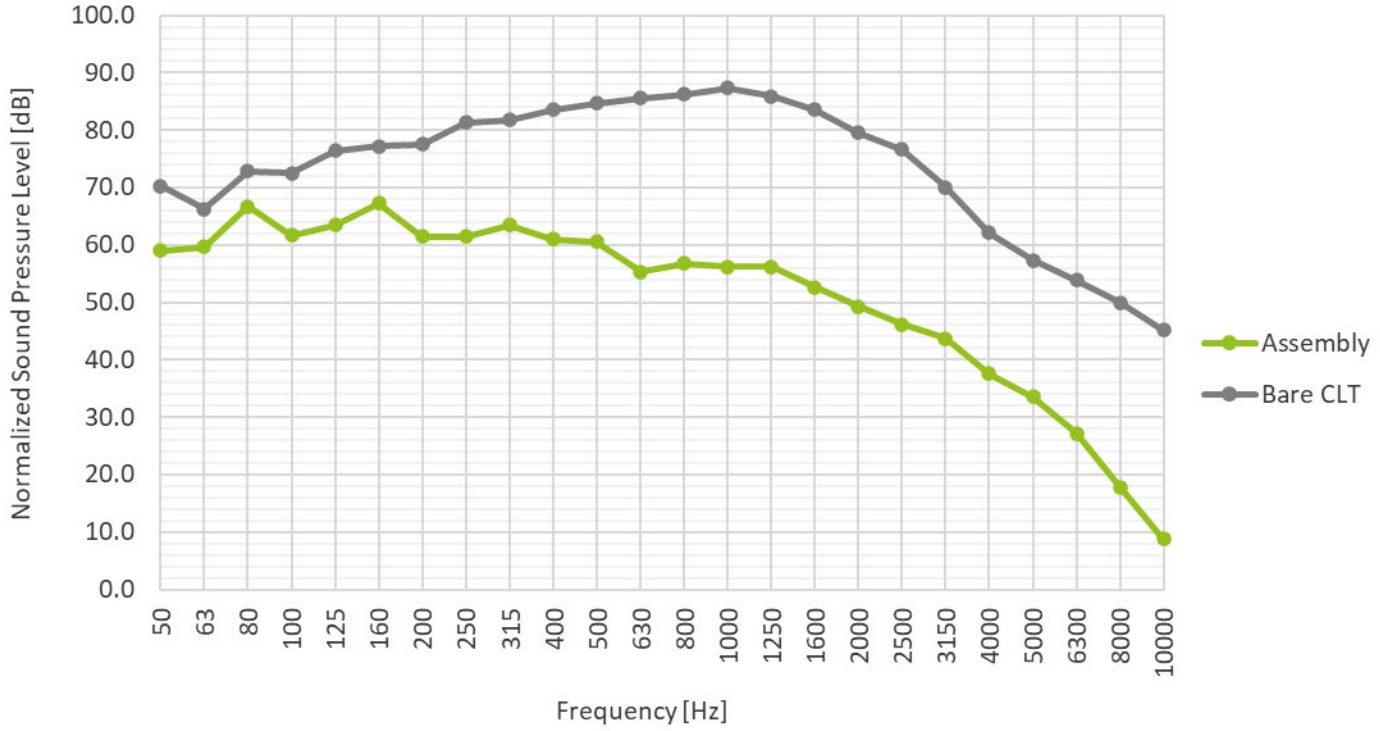
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.09			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 50**, 3" Concrete			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	38.1	-	59.0	-
63	36.8	-	59.7	-
80	29.8	-	66.7	-
100	35.5	-	61.7	1
125	41.4	2	63.5	2
160	39.6	6	67.3	6
200	48.4	1	61.4	0
250	50.7	1	61.5	0
315	51.4	4	63.5	2
400	52.4	6	61.0	1
500	56.9	2	60.6	2
630	59.3	1	55.3	0
800	60.1	1	56.8	0
1000	62.4	0	56.2	0
1250	64.0	0	56.2	3
1600	65.5	0	52.6	3
2000	64.8	0	49.3	2
2500	62.3	1	46.2	2
3150	66.0	0	43.7	3
4000	67.3	0	37.6	-
5000	69.0	-	33.6	-
6300	71.9	-	27.2	-
8000	74.4	-	17.8	-
10000	69.5	-	8.8	-
Ratings	**STC 59**	**25**	**IIC 51**	**27**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

CONCRETE SLAB SURFACE

5 ply 140mm CLT PRODUCT COMPARISON

3” Concrete slab over Sonus curve

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. Made in the USA from recycled cars & truck tires are green circle certified for recycled content and qualify for up to 8 LEED points.

Detail	Assembly	Acoustic Rating	
	Concrete slab 3” **sonus curve 10, (10 mm)** CLT – 5 ply 140mm	**IIC 49** **HIIC 50** **LIIC 65**	STC 53
	Concrete slab 3” **sonus curve 17, (17 mm)** CLT – 5 ply 140mm	**IIC 50** **HIIC 51** **LIIC 64**	STC 54
	Concrete slab 3” **sonus curve 25, (25 mm)** CLT – 5 ply 140mm	**IIC 52** **HIIC 52** **LIIC 61**	STC 54
	Concrete slab 3” **sonus curve 50, (50 mm)** CLT – 5 ply 140mm	**IIC 54** **HIIC 54** **LIIC 65**	STC 57

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.10			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Concrete Topping, 3” sonus curve 10, 10 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 53	IIC 49	HIIC 50	LIIC 65
Detail				

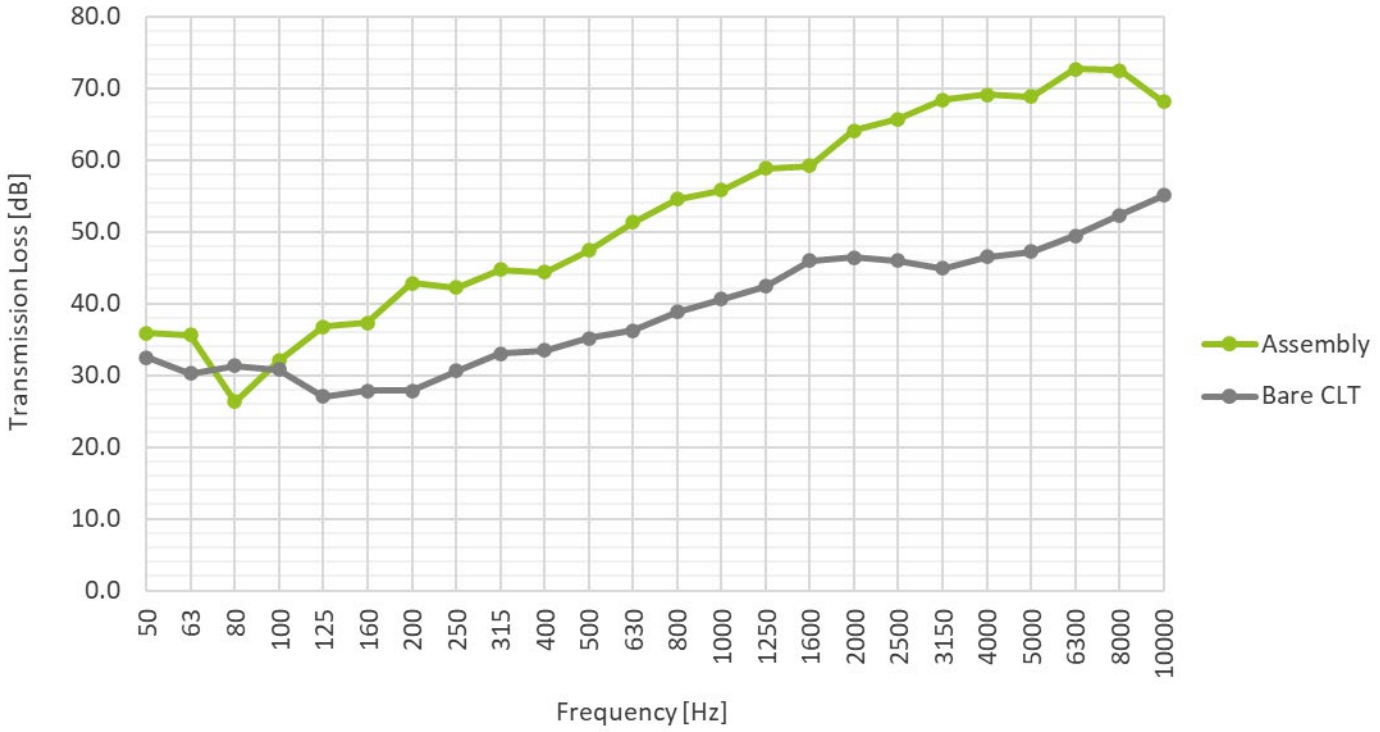
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

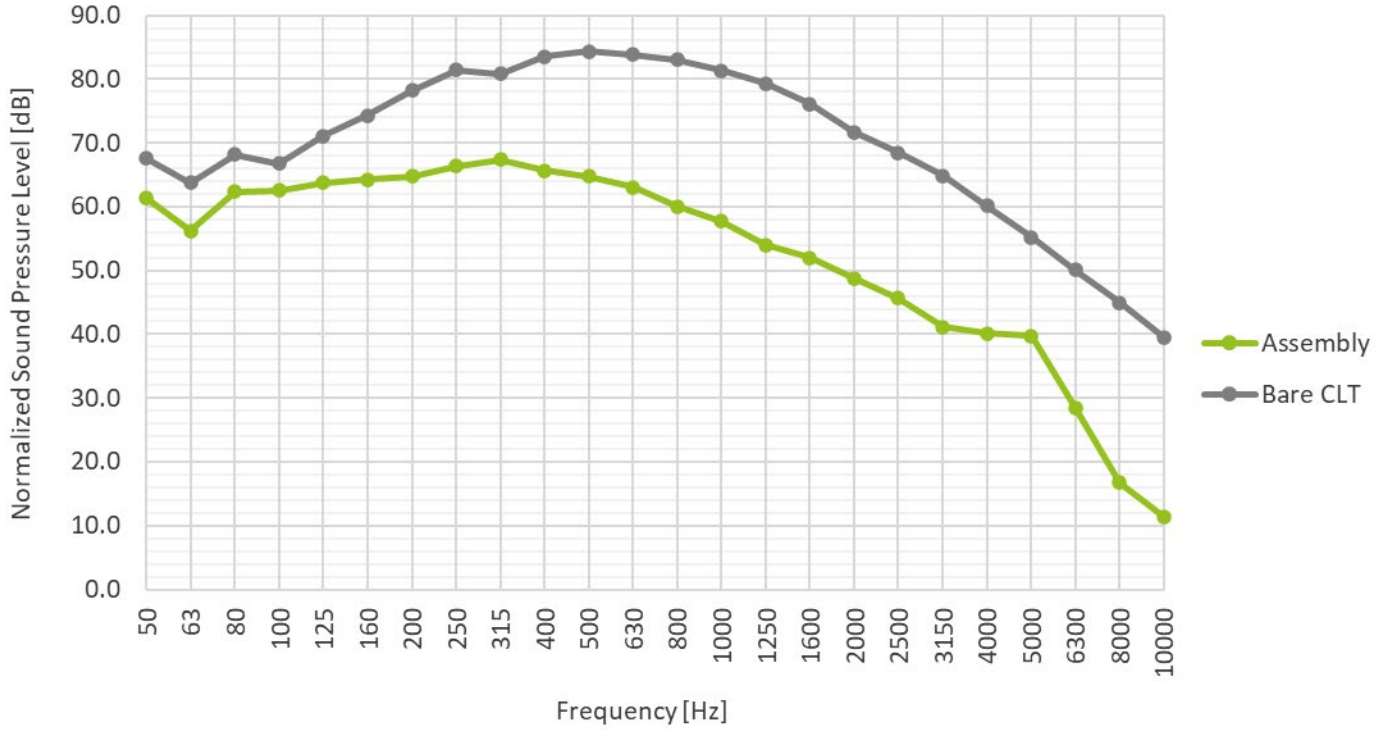
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.10			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	3” Concrete Topping, **sonus curve 10**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	35.9	-	61.3	-
63	35.6	-	56.2	-
80	26.3	-	62.3	-
100	32.0	-	62.5	0
125	36.8	0	63.7	1
160	37.3	3	64.2	1
200	42.8	0	64.7	2
250	42.2	4	66.4	3
315	44.7	4	67.4	4
400	44.4	8	65.7	4
500	47.4	6	64.8	4
630	51.3	3	63.0	3
800	54.5	1	60.0	1
1000	55.8	0	57.7	0
1250	58.8	0	54.0	0
1600	59.2	0	52.0	0
2000	64.1	0	48.8	0
2500	65.7	0	45.7	0
3150	68.4	0	41.1	0
4000	69.1	0	40.1	-
5000	68.8	-	39.7	-
6300	72.7	-	28.5	-
8000	72.5	-	16.7	-
10000	68.1	-	11.4	-
Ratings	**STC 53**	**29**	**IIC 49**	**23**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

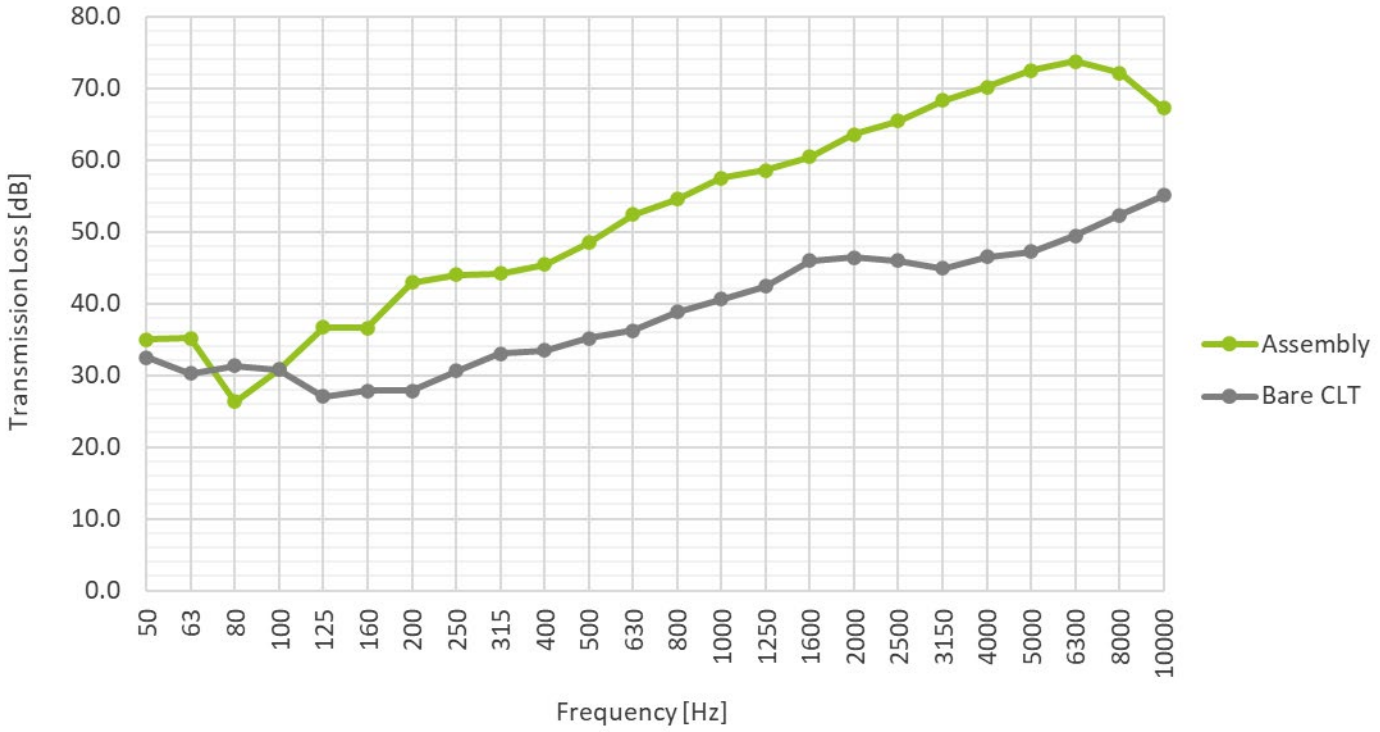
Test Number	R4267.01			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Concrete Topping, 3” sonus curve 17, 17 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 54	IIC 50	HIIC 51	LIIC 64
Detail				

Please contact us to request a copy of the official test report from Intertek.

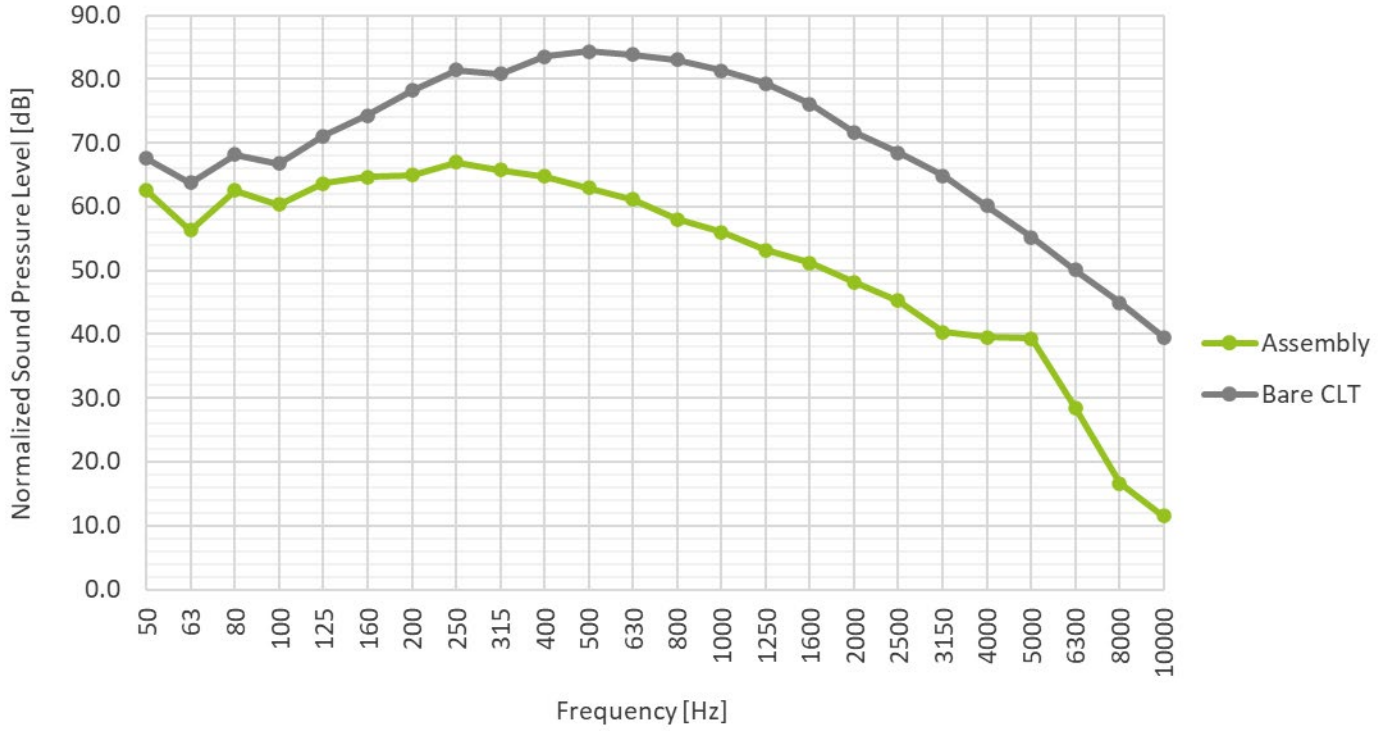
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.01			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	3” Concrete Topping, **sonus curve 17**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	35.0	-	62.5	-
63	35.2	-	56.3	-
80	26.3	-	62.5	-
100	30.8	-	60.3	0
125	36.7	1	63.6	2
160	36.6	4	64.6	3
200	42.9	1	65.0	3
250	44.0	3	67.0	5
315	44.2	6	65.8	4
400	45.4	8	64.7	4
500	48.5	5	62.9	3
630	52.4	3	61.1	2
800	54.5	1	58.0	0
1000	57.5	0	56.0	0
1250	58.6	0	53.2	0
1600	60.4	0	51.2	0
2000	63.6	0	48.2	0
2500	65.4	0	45.3	0
3150	68.3	0	40.3	0
4000	70.2	0	39.5	-
5000	72.5	-	39.3	-
6300	73.7	-	28.5	-
8000	72.1	-	16.6	-
10000	67.2	-	11.5	-
Ratings	**STC 54**	**32**	**IIC 50**	**26**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

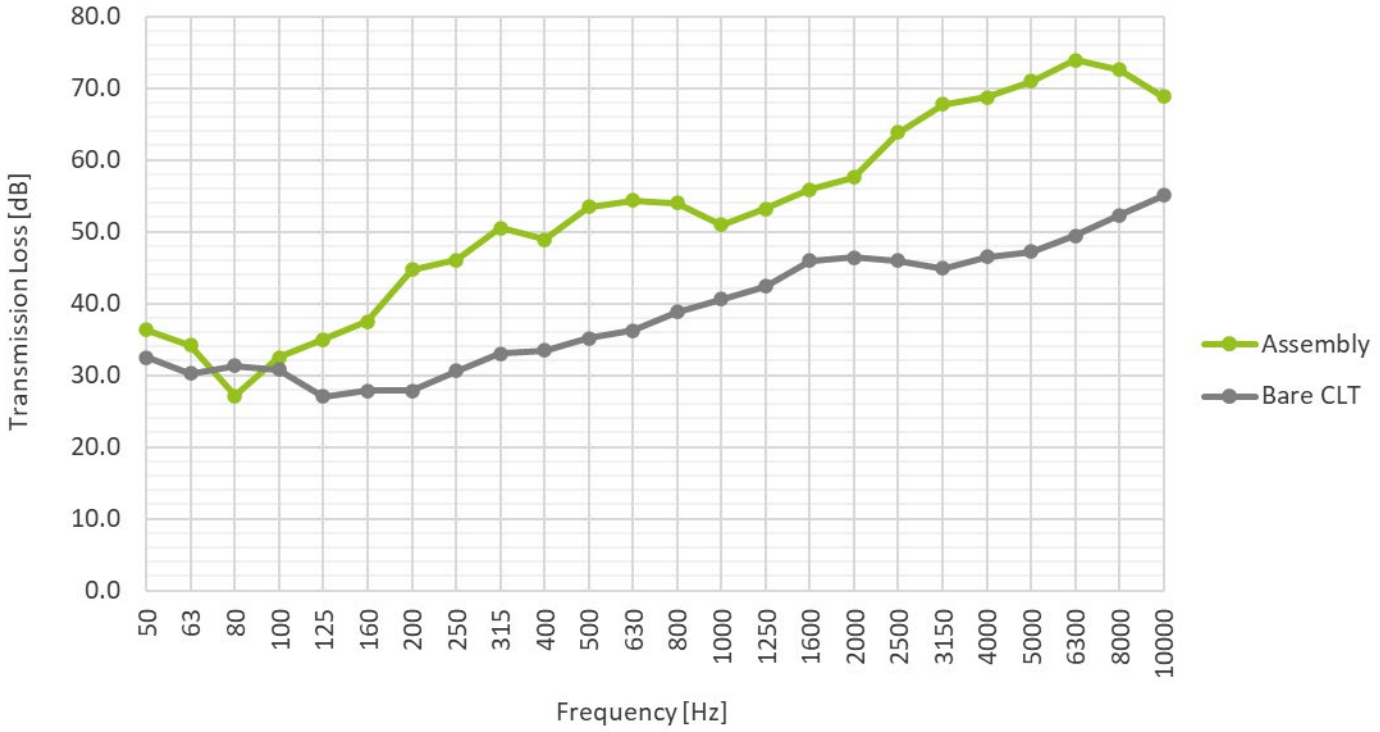
Test Number	R4267.15			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Concrete Topping, 3” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 54	IIC 52	HIIC 52	LIIC 61
Detail				

Please contact us to request a copy of the official test report from Intertek.

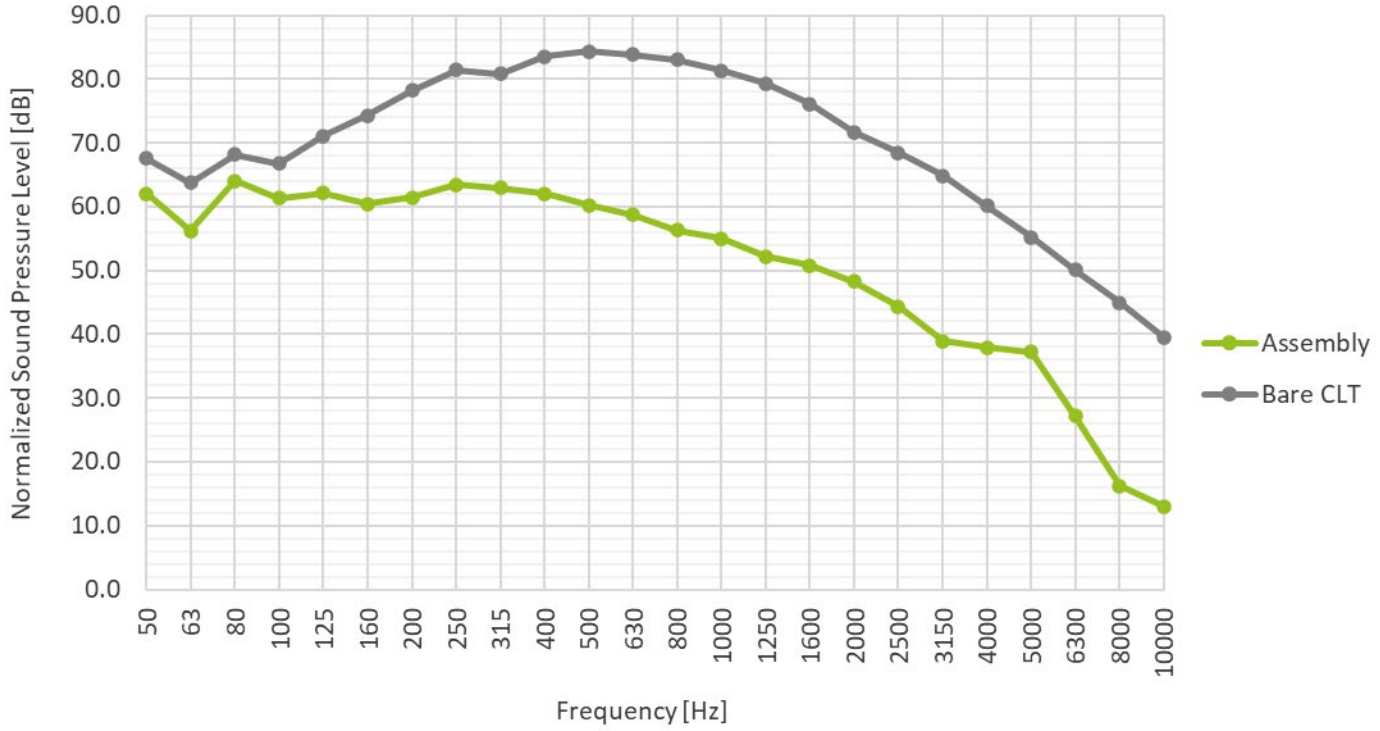
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.15			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	3” Concrete Topping, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	36.3	-	62.0	-
63	34.2	-	56.2	-
80	27.1	-	64.0	-
100	32.5	-	61.3	1
125	35.0	3	62.1	2
160	37.5	4	60.4	0
200	44.7	0	61.4	1
250	46.1	1	63.4	3
315	50.5	0	62.9	3
400	48.9	4	62.0	3
500	53.5	1	60.2	2
630	54.4	1	58.7	2
800	54.0	2	56.3	0
1000	51.0	6	55.0	0
1250	53.2	5	52.2	0
1600	55.9	2	50.8	2
2000	57.6	0	48.3	2
2500	63.8	0	44.4	1
3150	67.8	0	38.9	0
4000	68.7	0	37.9	-
5000	71.0	-	37.2	-
6300	73.9	-	27.2	-
8000	72.6	-	16.2	-
10000	68.8	-	13.0	-
Ratings	**STC 54**	**29**	**IIC 52**	**22**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

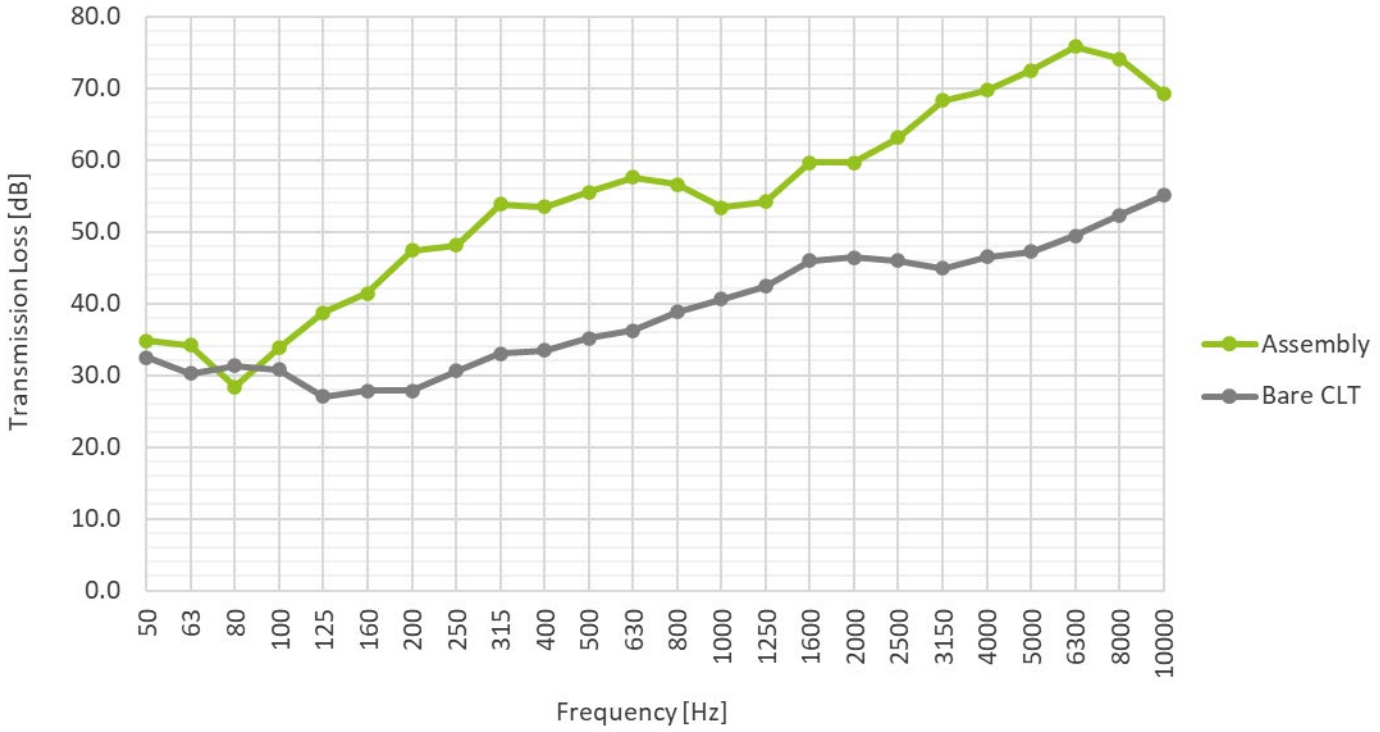
Test Number	R4267.20			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Concrete Topping, 3” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 57	IIC 54	HIIC 54	LIIC 65
Detail				

Please contact us to request a copy of the official test report from Intertek.

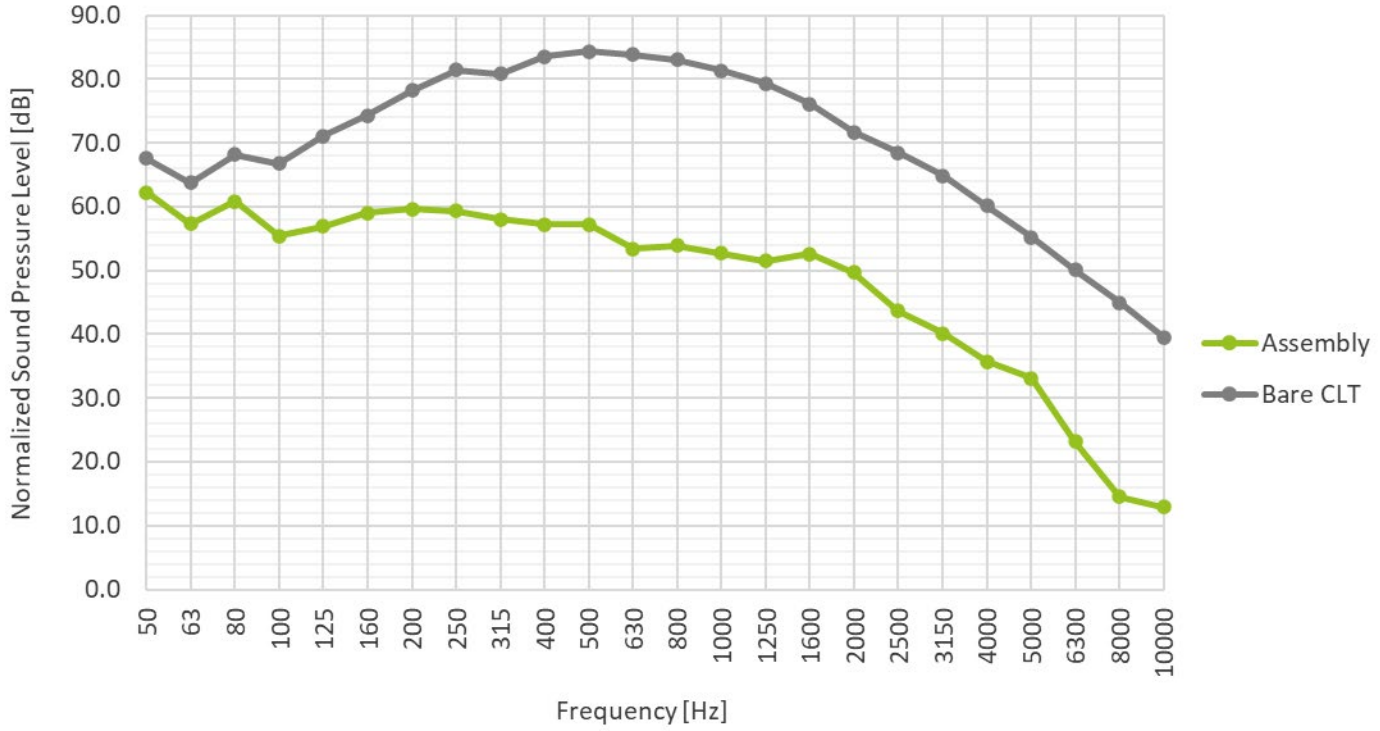
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.20			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	3” Concrete Topping, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	34.8	-	62.2	-
63	34.2	-	57.3	-
80	28.4	-	60.8	-
100	33.8	-	55.4	0
125	38.7	2	56.9	0
160	41.4	3	59.0	1
200	47.4	0	59.6	2
250	48.1	2	59.3	1
315	53.8	0	58.0	0
400	53.5	2	57.2	0
500	55.5	2	57.2	1
630	57.6	0	53.4	0
800	56.6	2	53.9	0
1000	53.4	7	52.7	0
1250	54.2	7	51.5	1
1600	59.6	1	52.6	6
2000	59.6	1	49.7	6
2500	63.1	0	43.7	3
3150	68.3	0	40.1	2
4000	69.7	0	35.7	-
5000	72.5	-	33.1	-
6300	75.8	-	23.2	-
8000	74.1	-	14.5	-
10000	69.3	-	12.9	-
Ratings	**STC 57**	**29**	**IIC 54**	**23**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

CEMENT/SCREED BOARD SURFACE

5 ply 140mm CLT PRODUCT COMPARISON

EXACOR Dry Screed over Sonus curve

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. EXACOR is a ½" dry screed board that weighs 2.7lbs PSF and is glued and screwed to each other. Tested in 2 or 3 layers 1" or 1.5" thickness.

Detail	Assembly	Acoustic Rating	
	**EXACOR** dry screed **1"** **sonus curve 25, (25 mm)** CLT – 5 ply 140mm	**IIC 50** **HIIC 58** **LIIC 58**	STC 52
	**EXACOR** dry screed **1.5"** **sonus curve 25, (25 mm)** CLT – 5 ply 140mm	**IIC 53** **HIIC 61** **LIIC 51**	STC 53
	**EXACOR** dry screed **1"** **sonus curve 50, (50 mm)** CLT – 5 ply 140mm	**IIC 52** **HIIC 62** **LIIC 50**	STC 54
	**EXACOR** dry screed **1.5"** **sonus curve 50, (50 mm)** CLT – 5 ply 140mm	**IIC 55** **HIIC 63** **LIIC 51**	STC 57

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.31			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	EXACOR, 1” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 52	IIC 50	HIIC 58	LIIC 58
Detail				

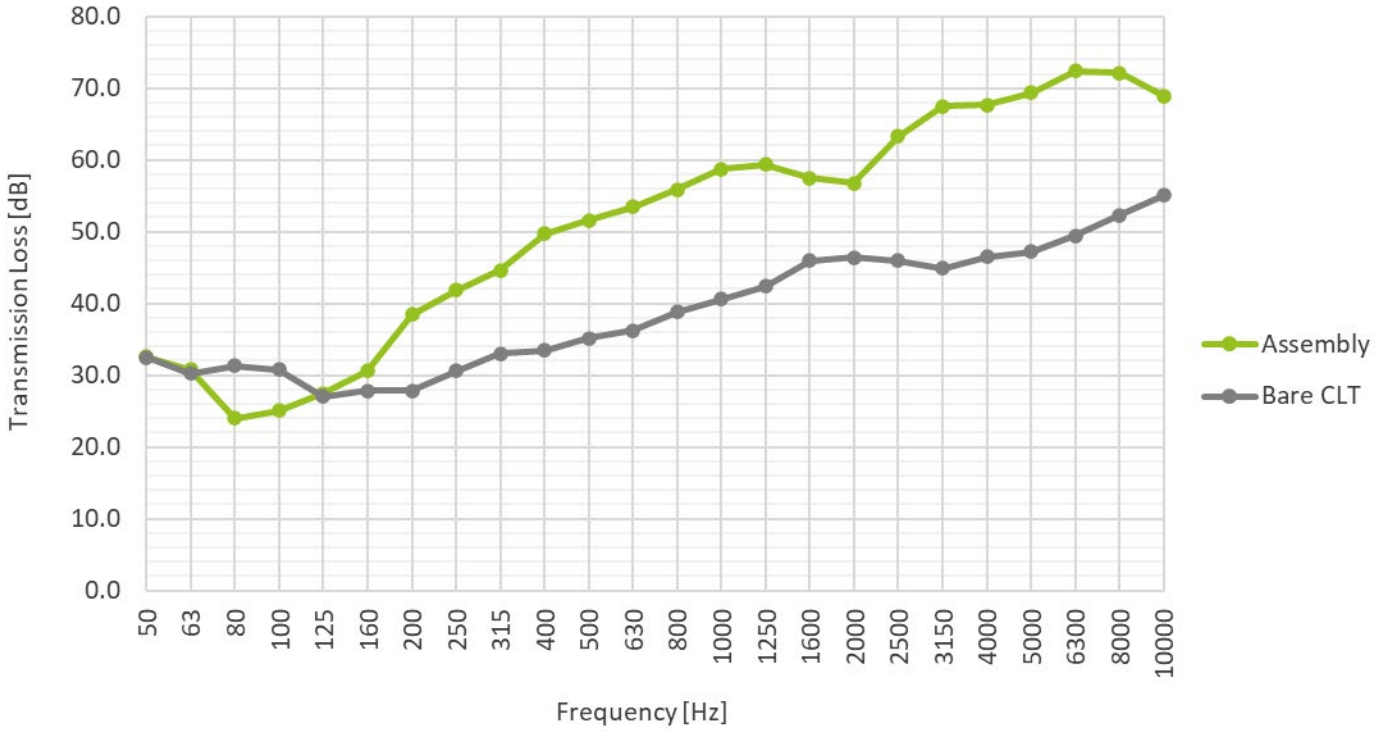
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

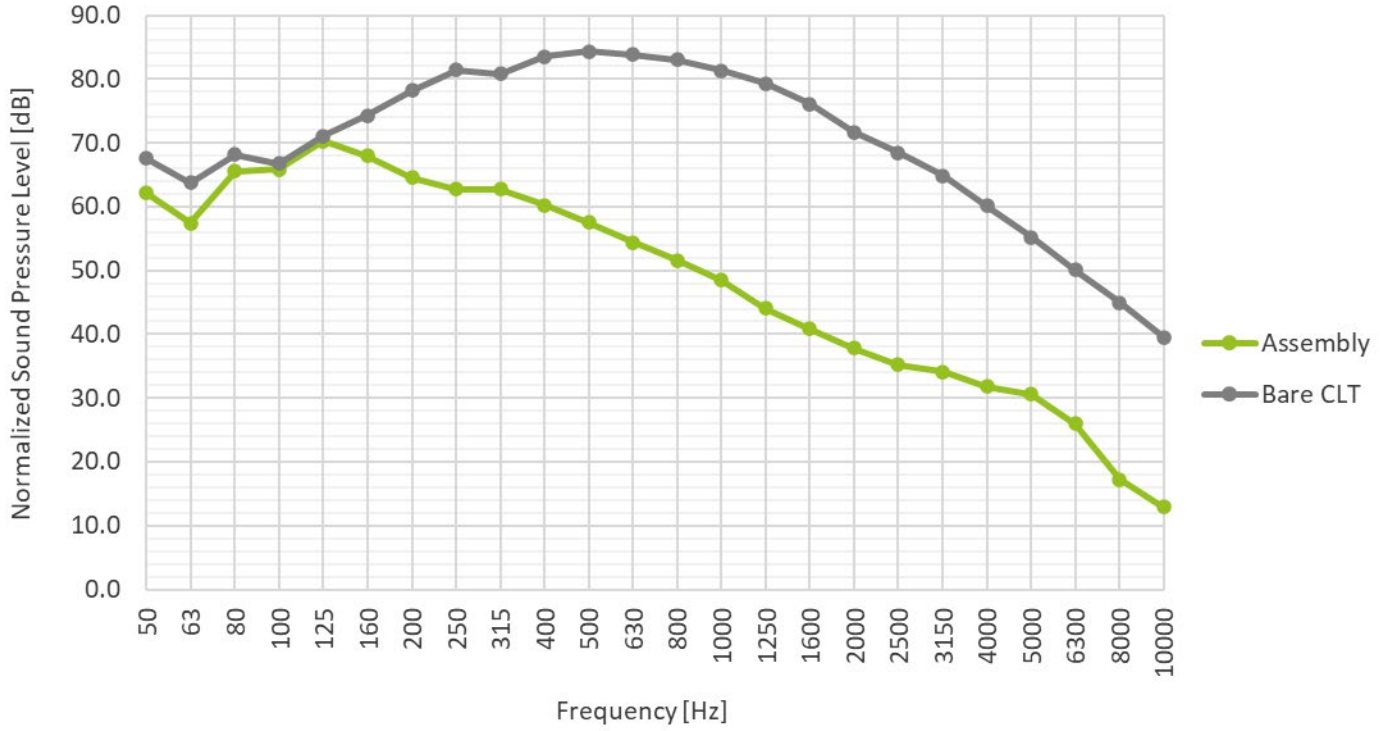
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.31			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	1” EXACOR, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.6	-	62.1	-
63	30.8	-	57.4	-
80	24.0	-	65.6	-
100	25.1	-	65.9	4
125	27.5	8	70.3	8
160	30.6	8	68.0	6
200	38.5	4	64.5	2
250	41.9	3	62.7	1
315	44.6	3	62.7	1
400	49.7	1	60.2	0
500	51.6	0	57.5	0
630	53.5	0	54.4	0
800	55.9	0	51.6	0
1000	58.7	0	48.5	0
1250	59.4	0	44.1	0
1600	57.5	0	40.8	0
2000	56.8	0	37.8	0
2500	63.3	0	35.2	0
3150	67.5	0	34.1	0
4000	67.7	0	31.8	-
5000	69.4	-	30.6	-
6300	72.4	-	26.0	-
8000	72.1	-	17.2	-
10000	68.9	-	12.9	-
Ratings	**STC 52**	**27**	**IIC 50**	**22**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.27			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	EXACOR, 1-1/2” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 53	IIC 53	HIIC 61	LIIC 51
Detail				

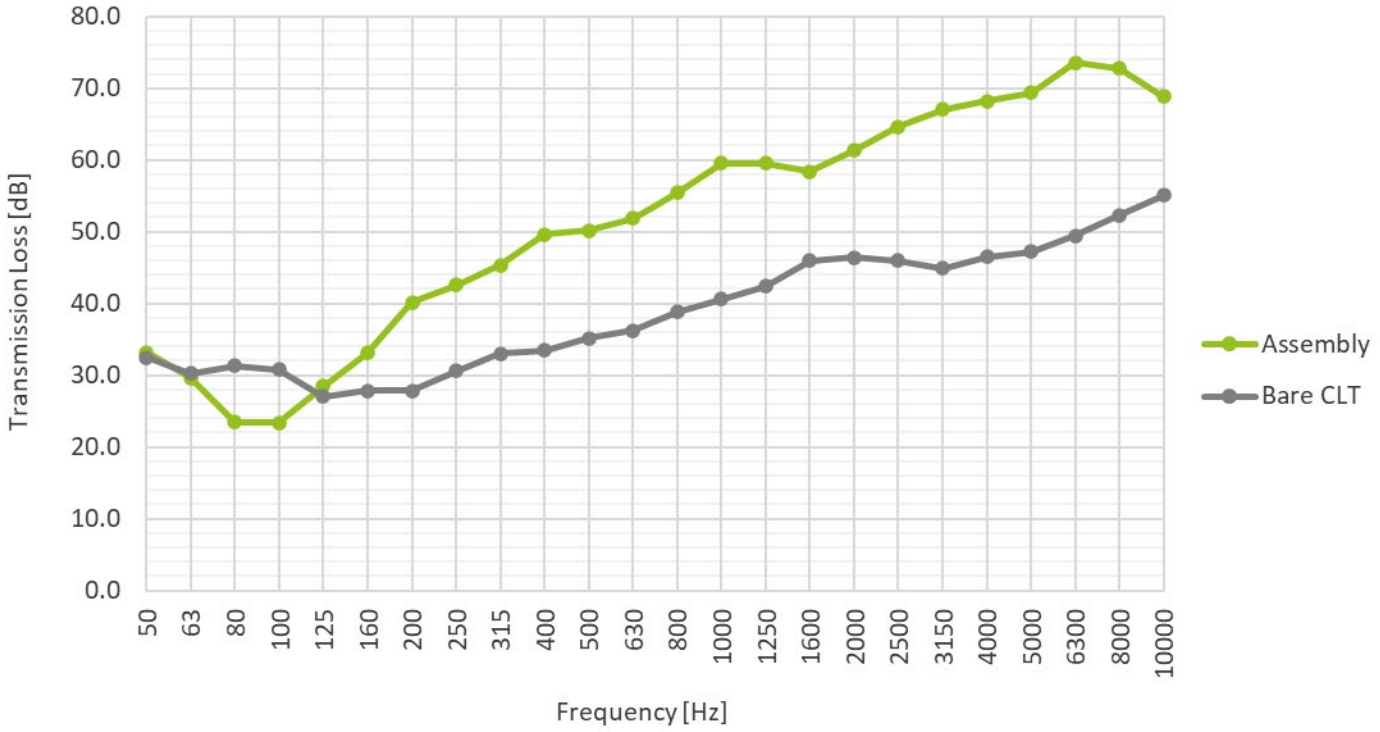
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

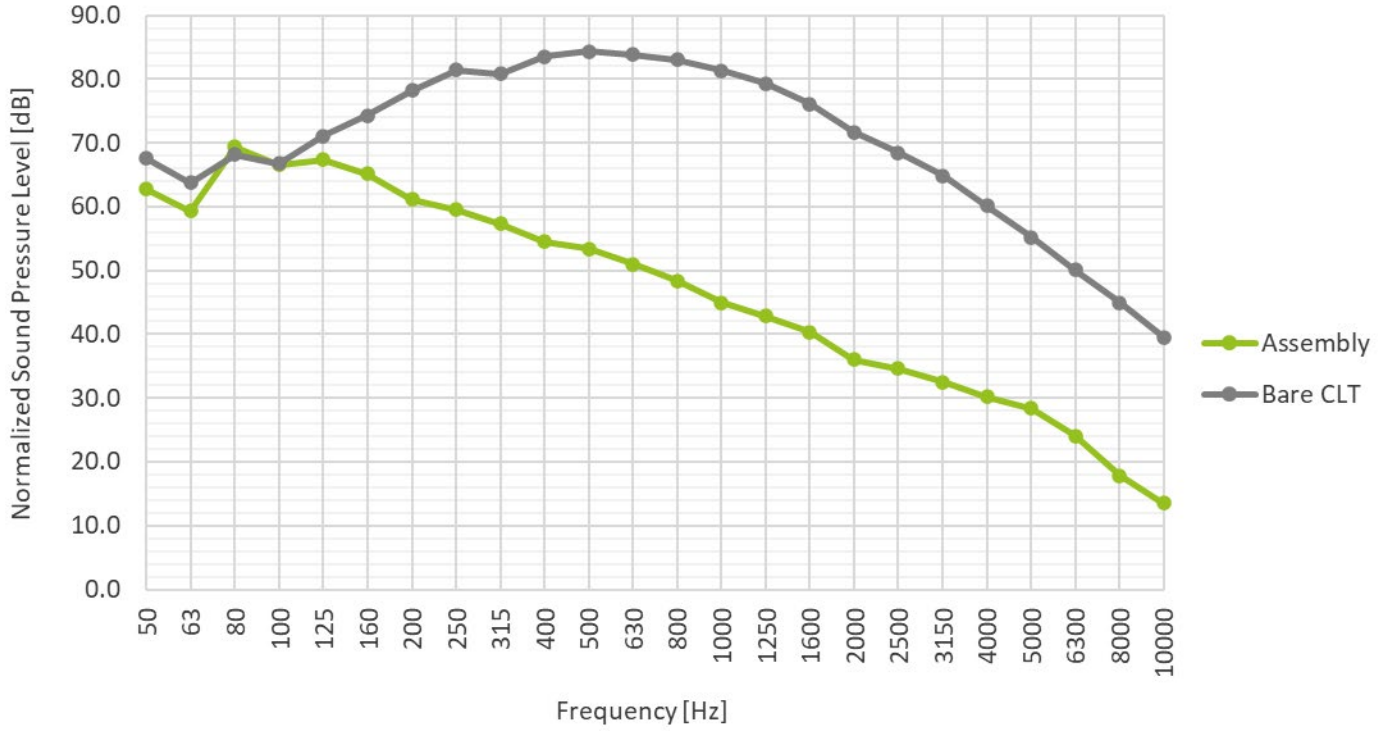
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.27			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	1-1/2" EXACOR, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	33.2	-	62.7	-
63	29.6	-	59.3	-
80	23.5	-	69.4	-
100	23.4	-	66.6	8
125	28.5	8	67.4	8
160	33.1	7	65.2	6
200	40.2	3	61.1	2
250	42.6	3	59.5	0
315	45.3	4	57.3	0
400	49.6	2	54.5	0
500	50.2	3	53.4	0
630	51.9	2	51.0	0
800	55.4	0	48.4	0
1000	59.5	0	45.0	0
1250	59.5	0	42.8	0
1600	58.4	0	40.3	0
2000	61.3	0	36.0	0
2500	64.6	0	34.6	0
3150	67.0	0	32.5	0
4000	68.2	0	30.2	-
5000	69.4	-	28.4	-
6300	73.6	-	24.1	-
8000	72.8	-	17.8	-
10000	68.8	-	13.5	-
Ratings	**STC 53**	**32**	**IIC 53**	**24**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.26			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	EXACOR, 1” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 54	IIC 52	HIIC 62	LIIC 50
Detail				

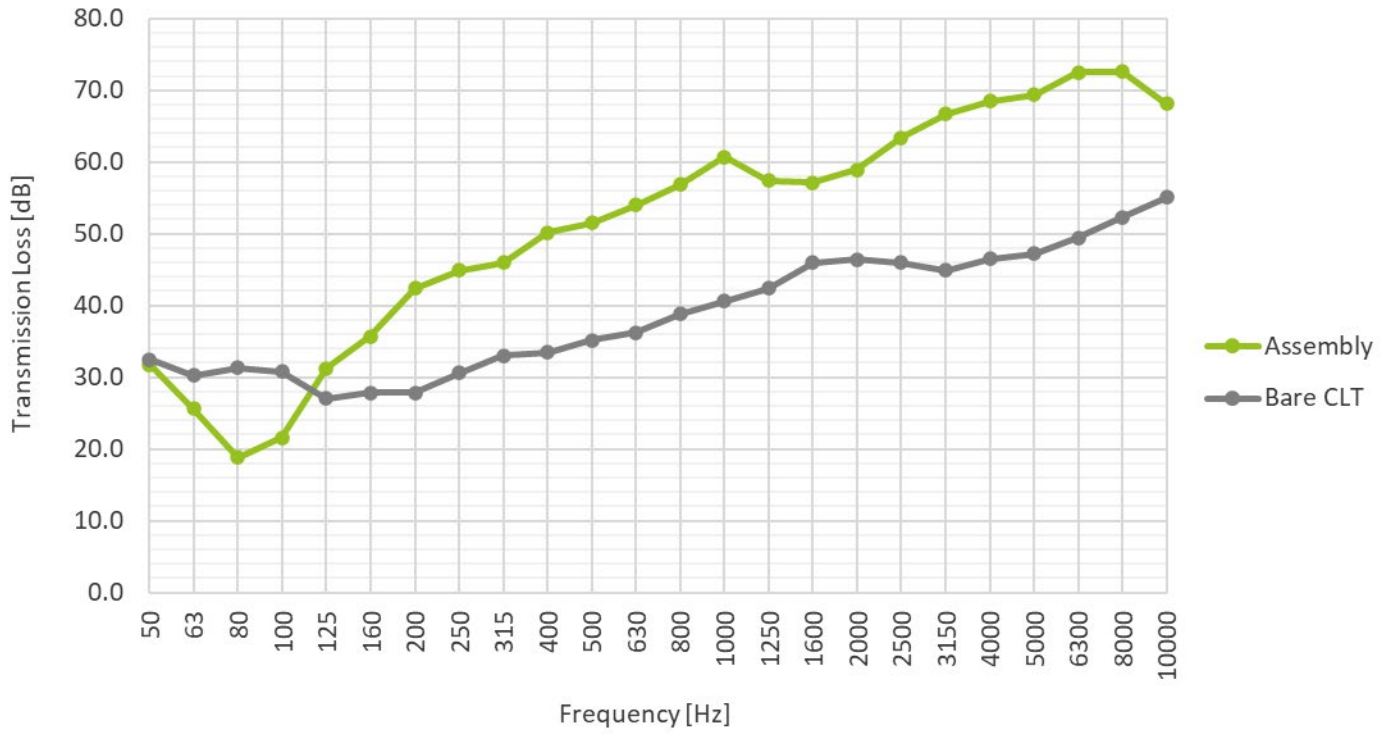
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

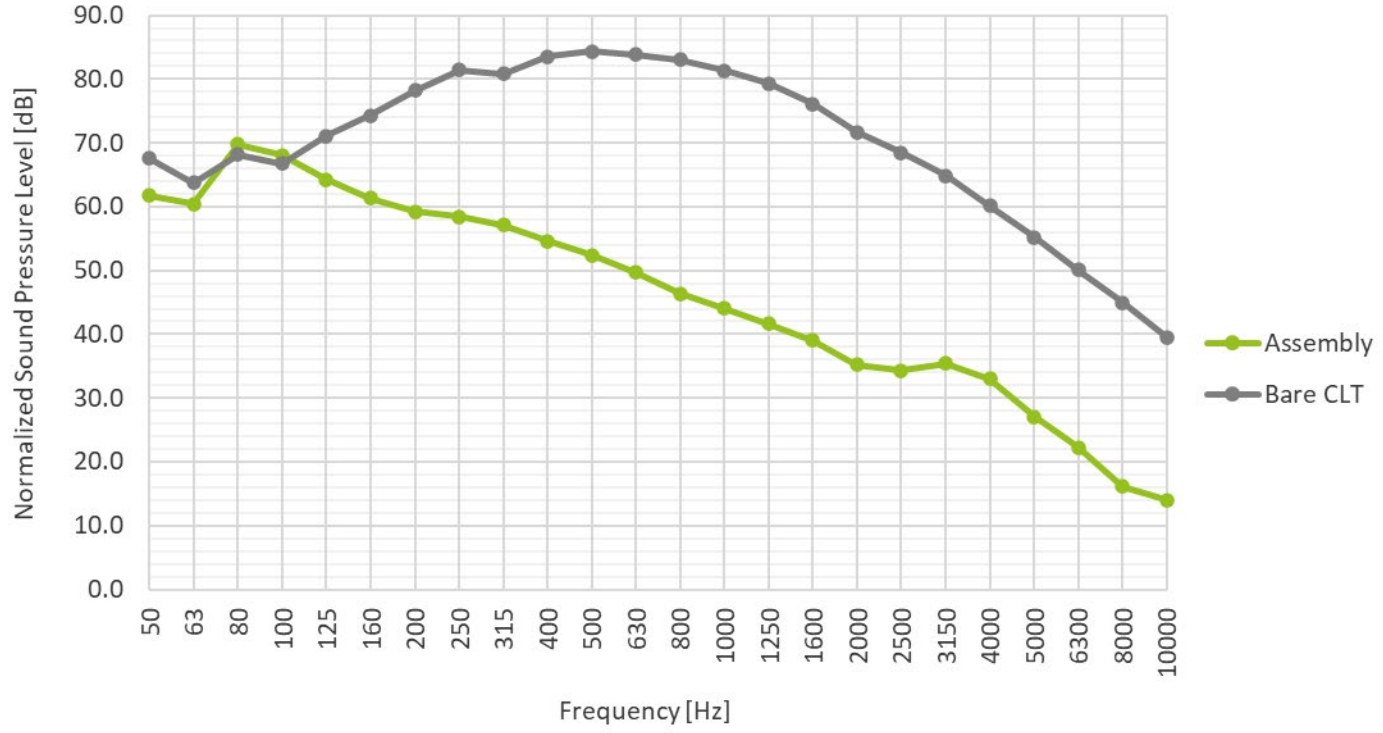
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.26			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	1” EXACOR, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.8	-	61.7	-
63	25.6	-	60.4	-
80	18.8	-	69.8	-
100	21.6	-	68.1	8
125	31.2	7	64.2	4
160	35.7	5	61.3	1
200	42.4	2	59.2	0
250	44.9	2	58.4	0
315	46.0	4	57.1	0
400	50.2	3	54.6	0
500	51.5	2	52.4	0
630	54.0	1	49.7	0
800	56.9	0	46.4	0
1000	60.7	0	44.1	0
1250	57.4	1	41.6	0
1600	57.1	1	39.0	0
2000	58.9	0	35.2	0
2500	63.4	0	34.3	0
3150	66.7	0	35.4	0
4000	68.5	0	33.0	-
5000	69.4	-	27.1	-
6300	72.5	-	22.3	-
8000	72.6	-	16.1	-
10000	68.1	-	14.0	-
Ratings	**STC 54**	**28**	**IIC 52**	**13**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.25			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	EXACOR, 1-1/2” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 57	IIC 55	HIIC 63	LIIC 51
Detail				

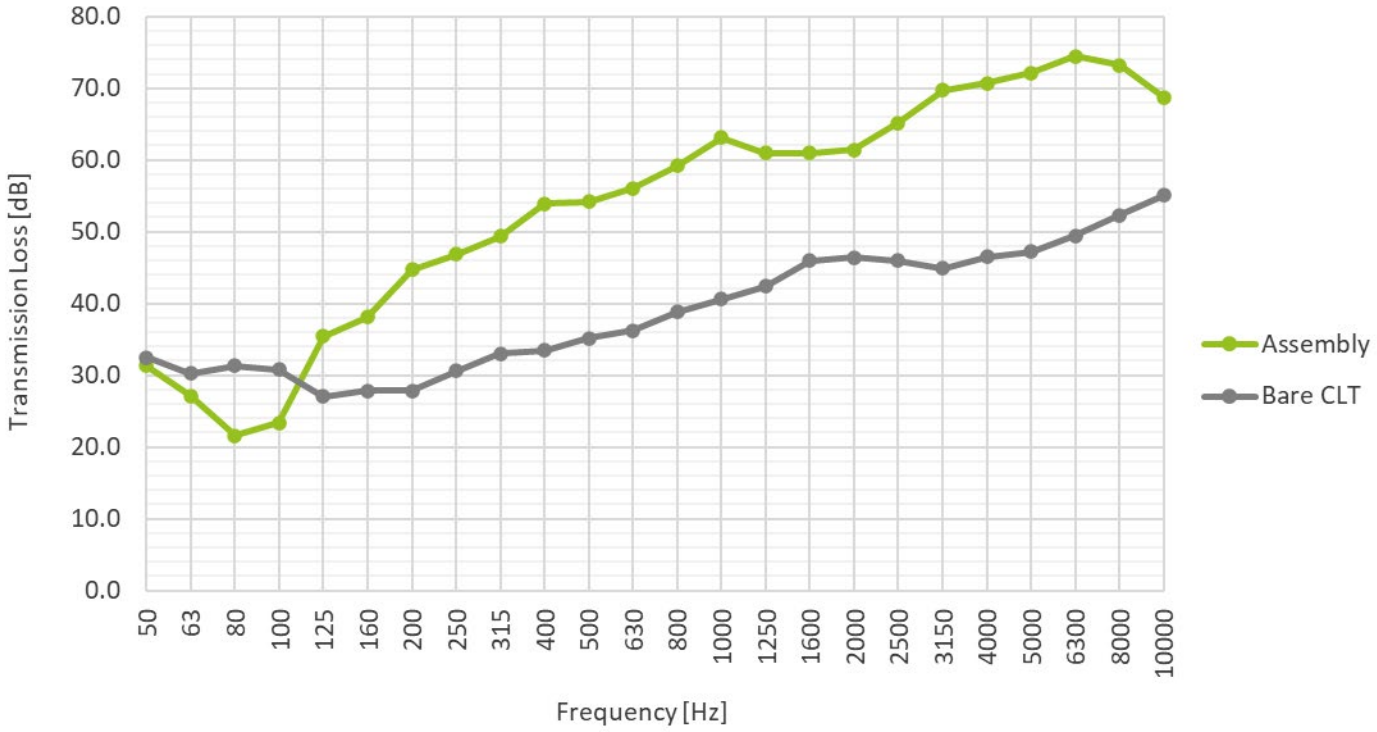
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

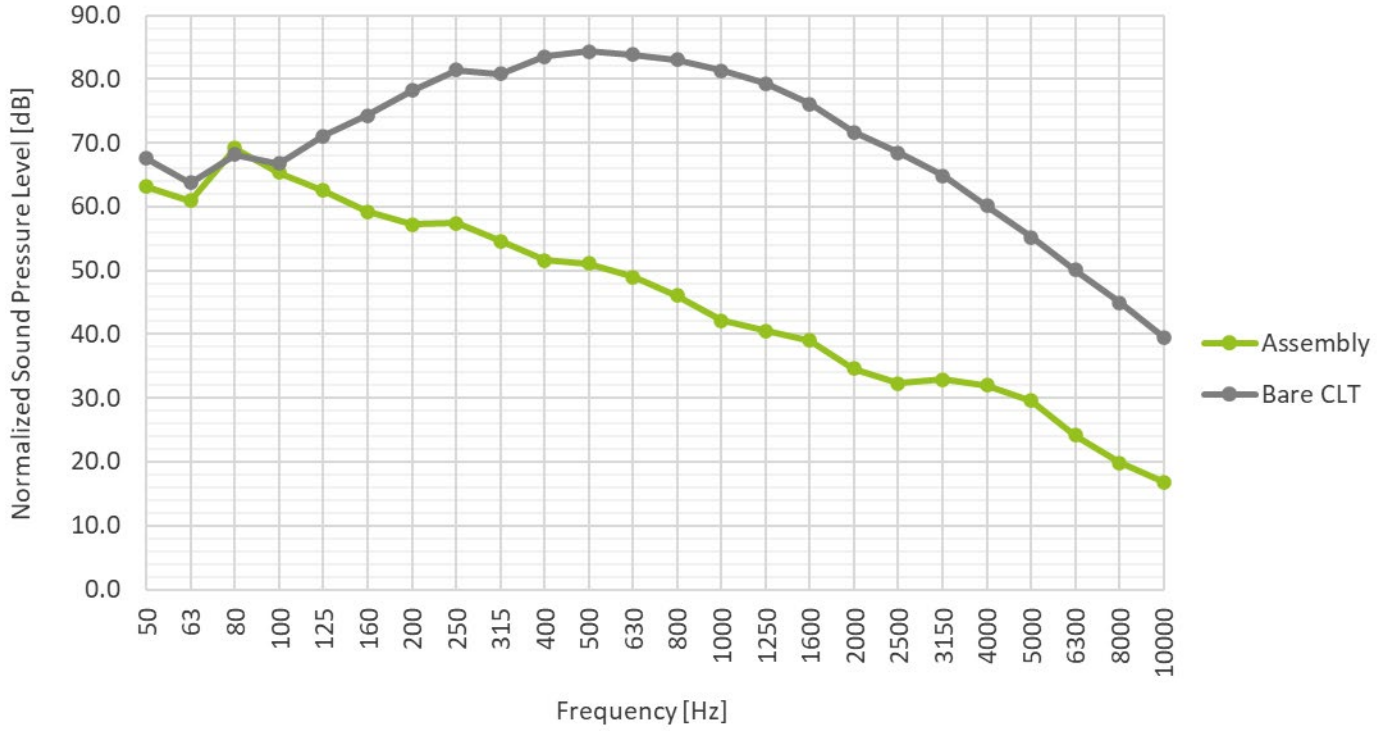
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.25			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	1-1/2" EXACOR, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.3	-	63.1	-
63	27.1	-	60.9	-
80	21.6	-	69.2	-
100	23.4	-	65.4	8
125	35.4	6	62.5	6
160	38.1	6	59.2	2
200	44.7	2	57.2	0
250	46.9	3	57.4	0
315	49.4	4	54.6	0
400	53.9	2	51.6	0
500	54.2	3	51.1	0
630	56.1	2	49.0	0
800	59.2	0	46.1	0
1000	63.1	0	42.1	0
1250	61.0	0	40.5	0
1600	61.0	0	39.0	0
2000	61.4	0	34.6	0
2500	65.2	0	32.3	0
3150	69.7	0	32.9	0
4000	70.7	0	32.0	-
5000	72.1	-	29.6	-
6300	74.5	-	24.2	-
8000	73.2	-	19.8	-
10000	68.7	-	16.8	-
Ratings	**STC 57**	**28**	**IIC 55**	**16**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

HARDWOOD FLOOR SURFACE

3 ply 105mm CLT PRODUCT COMPARISON

3” Concrete slab over Sonus curve with hardwood

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. Made in the USA from recycled cars & truck tires are green circle certified for recycled content and qualify for up to 8 LEED points.

Detail	Assembly	Acoustic Rating	
	Concrete slab 3” **sonus curve 17, (17 mm)** CLT – 3 ply 105mm hardwood	**IIC 54** **LIIC 65** **HIIC 60**	STC 54
	Concrete slab 3” **sonus curve 17, (17 mm)** CLT – 3 ply 105mm **sonus core 5** with hardwood	**IIC 55** **LIIC 66** **HIIC 65**	STC 55
	Concrete slab 3” **sonus curve 25, (25 mm)** CLT – 3 ply 105mm **sonus core 5** with hardwood	**IIC 57** **LIIC 67** **HIIC 70**	STC 55
	Concrete slab 3” **sonus curve 50, (50 mm)** CLT – 3 ply 105mm **sonus core 5** with hardwood	**IIC 58** **LIIC 58** **HIIC 65**	STC 59

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.08			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Engineered Wood, 3/8" (10 mm) Concrete, 3" (76 mm) **REGUPOL sonus curve 17, 21/32" (17 mm)** 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 54	IIC 54	LIIC 65	HIIC 60
Detail				

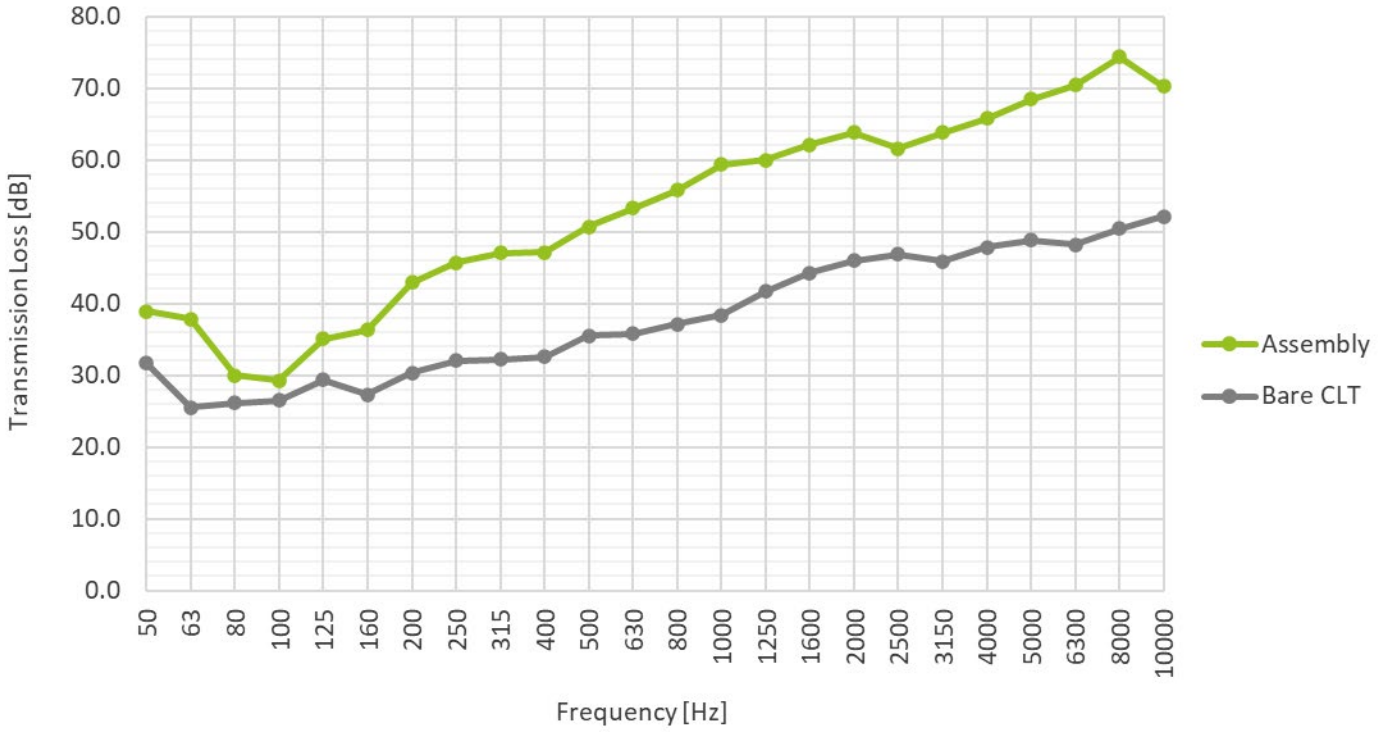
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

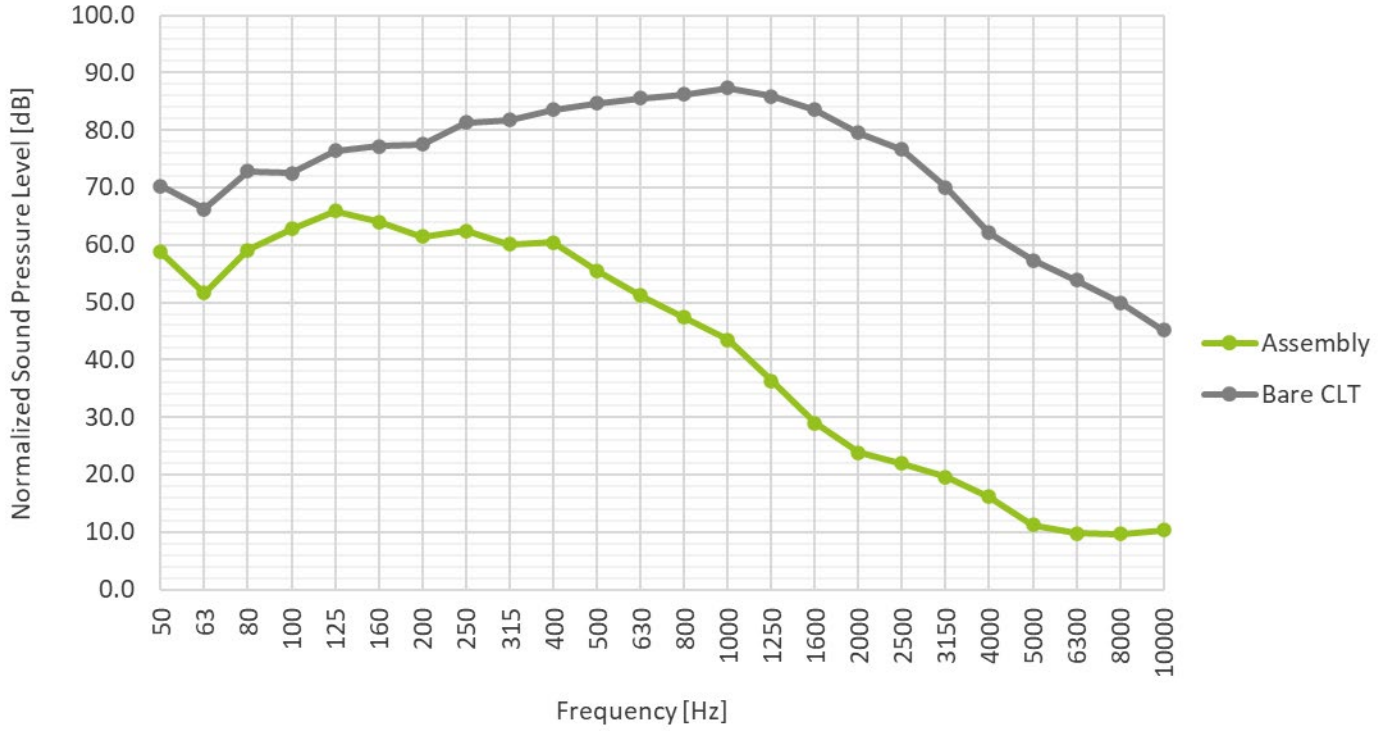
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.08			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 17**, 3" Concrete, Engineered Wood			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	38.9	-	58.8	-
63	37.8	-	51.6	-
80	30.0	-	59.1	-
100	29.3	-	62.8	5
125	35.1	3	65.9	8
160	36.3	5	64.0	6
200	42.9	1	61.4	3
250	45.7	1	62.5	5
315	47.0	3	60.1	2
400	47.1	6	60.4	3
500	50.7	3	55.5	0
630	53.3	2	51.2	0
800	55.8	0	47.4	0
1000	59.4	0	43.5	0
1250	60.0	0	36.3	0
1600	62.1	0	29.0	0
2000	63.8	0	23.8	0
2500	61.6	0	21.9	0
3150	63.8	0	19.6	0
4000	65.8	0	16.1	-
5000	68.5	-	11.2	-
6300	70.4	-	9.8	-
8000	74.4	-	9.7	-
10000	70.3	-	10.3	-
Ratings	**STC 54**	**24**	**IIC 54**	**32**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

TEST REPORT

ACOUSTICAL PERFORMANCE

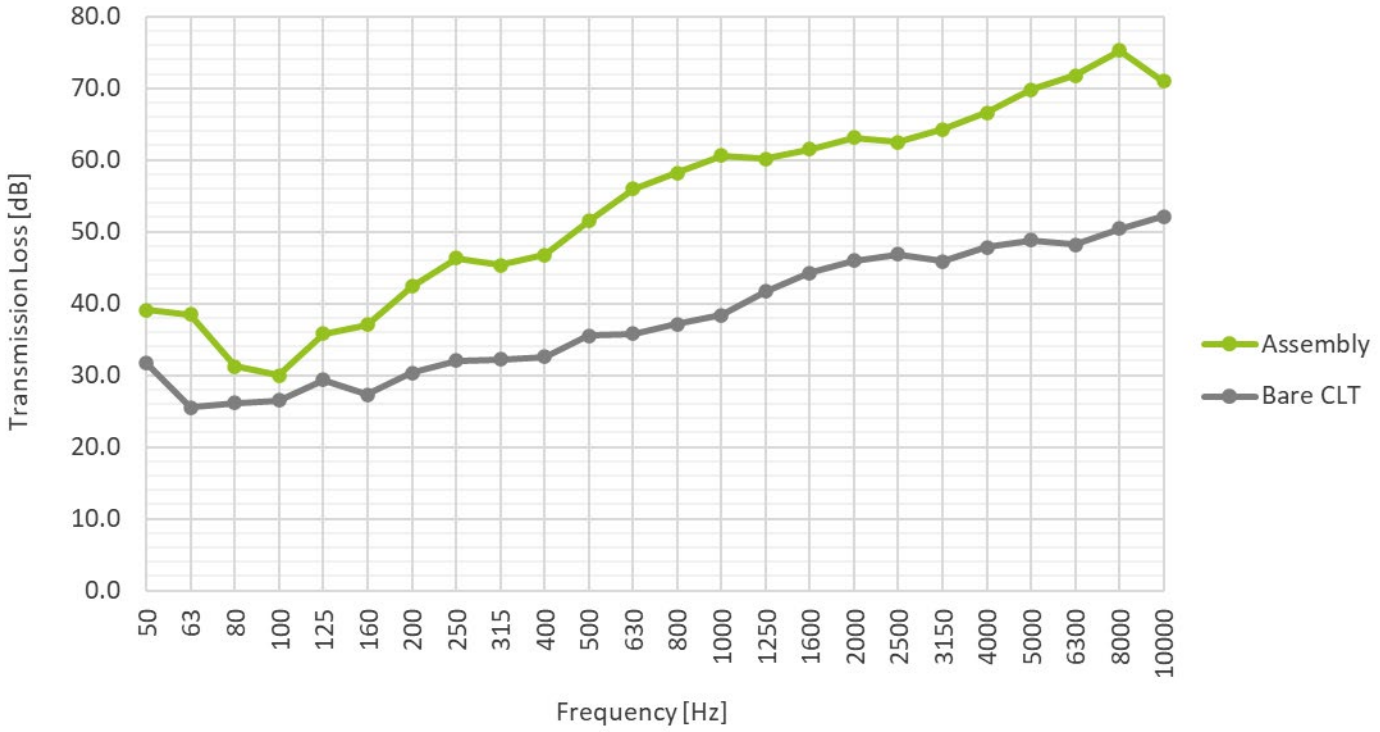
Test Number	S5237.06			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Engineered Wood, 3/8" (10 mm) REGUPOL sonus core 5, 3/16" (5 mm) Concrete, 3" (76 mm) REGUPOL sonus curve 17, 21/32" (17 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 55	IIC 55	LIIC 66	HIIC 65
Detail				

Please contact us to request a copy of the official test report from Intertek.

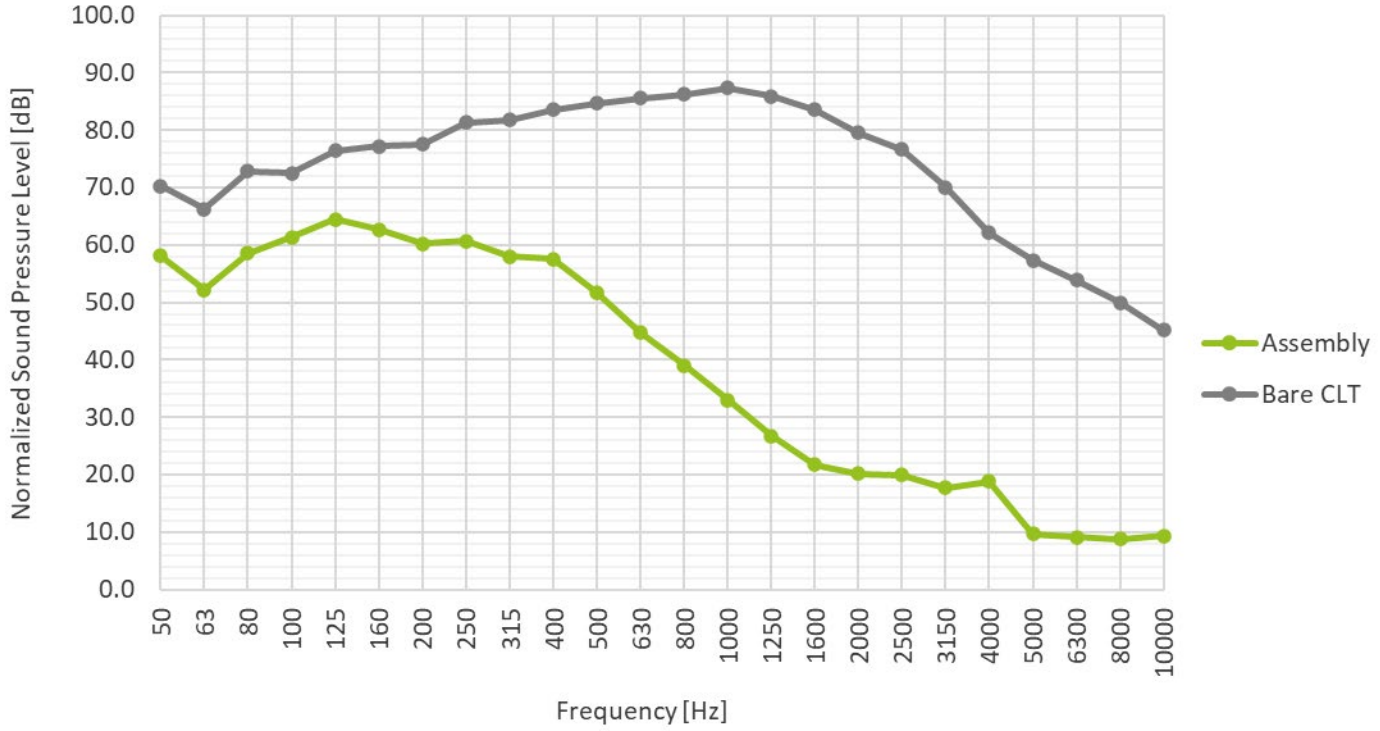
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.06			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 17**, 3" Concrete, **REGUPOL sonus core 5**, Engineered Hardwood			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	39.1	-	58.1	-
63	38.5	-	52.2	-
80	31.2	-	58.6	-
100	30.0	-	61.3	4
125	35.8	3	64.5	8
160	37.0	5	62.7	6
200	42.4	3	60.2	3
250	46.3	2	60.7	4
315	45.3	6	58.0	1
400	46.8	7	57.6	2
500	51.5	4	51.7	0
630	56.0	0	44.7	0
800	58.2	0	39.0	0
1000	60.6	0	33.0	0
1250	60.2	0	26.7	0
1600	61.5	0	21.7	0
2000	63.1	0	20.1	0
2500	62.5	0	19.9	0
3150	64.3	0	17.7	0
4000	66.6	0	18.8	-
5000	69.8	-	9.7	-
6300	71.8	-	9.1	-
8000	75.3	-	8.8	-
10000	71.0	-	9.3	-
Ratings	**STC 55**	**30**	**IIC 55**	**28**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.02			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Engineered Wood, 3/8 (10 mm) REGUPOL sonus core 5, 3/16 (5 mm) Concrete, 3” (76 mm) REGUPOL sonus curve, 1" (25 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 55	IIC 57	LIIC 67	HIIC 70
Detail				

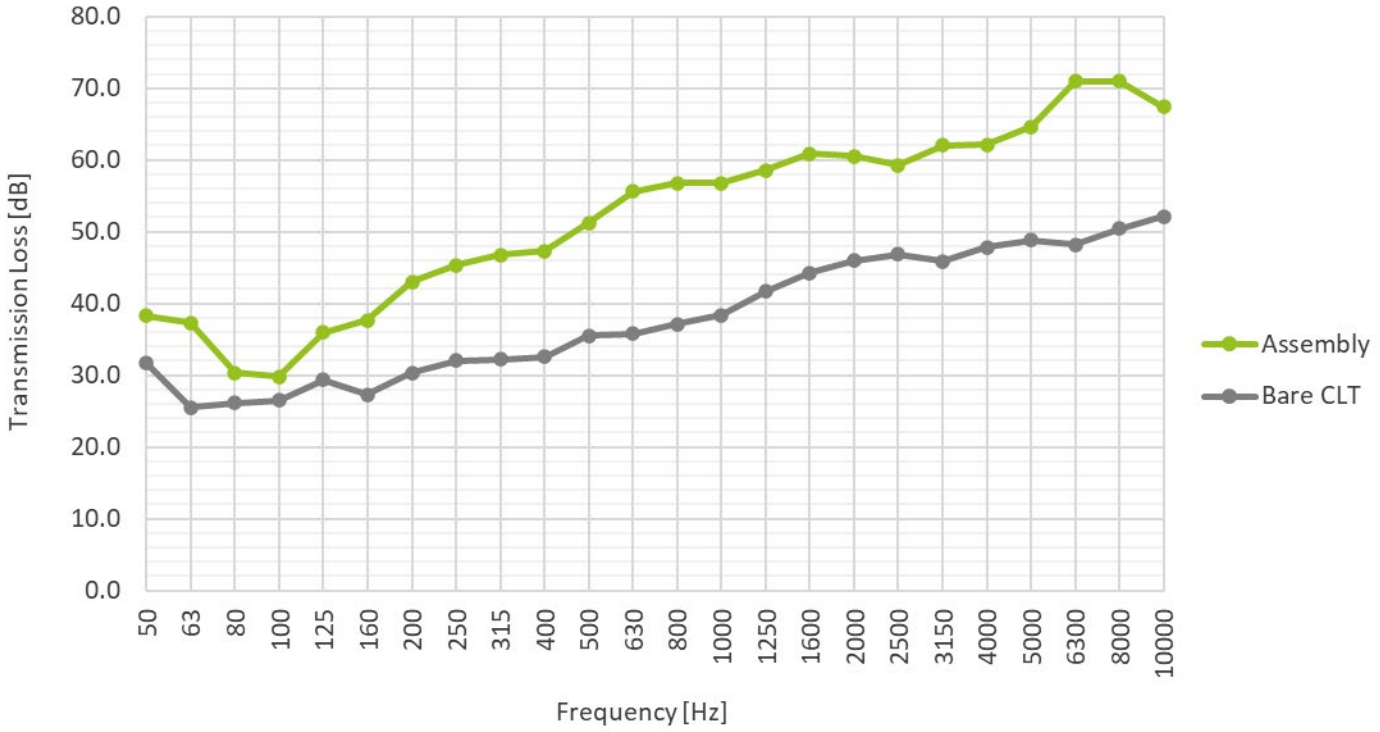
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

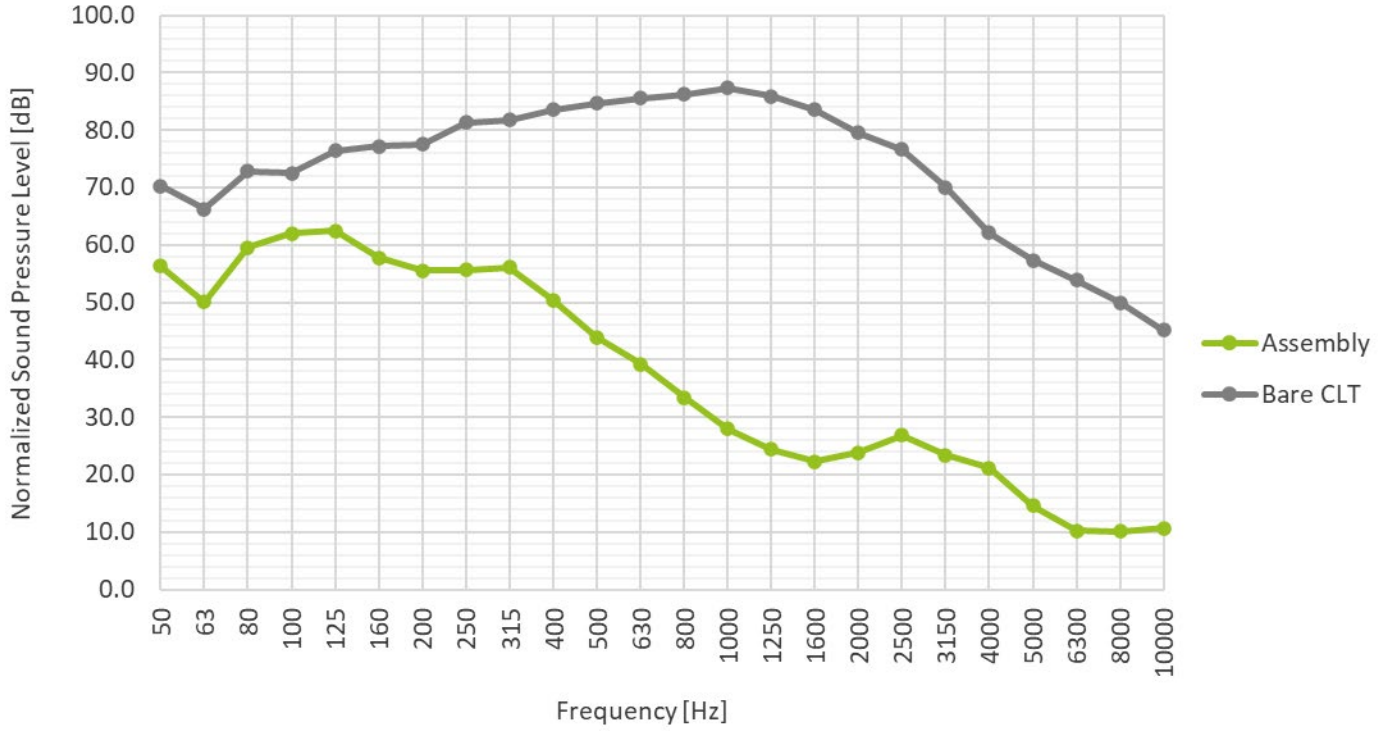
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.02			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 25**, 3" Concrete, **REGUPOL sonus core 5**, Engineered Wood			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	38.3	-	56.3	-
63	37.3	-	50.1	-
80	30.3	-	59.5	-
100	29.8	-	62.0	7
125	36.0	3	62.5	8
160	37.7	4	57.8	3
200	43.0	2	55.5	1
250	45.3	3	55.6	1
315	46.8	4	56.1	1
400	47.3	7	50.4	0
500	51.2	4	43.9	0
630	55.6	0	39.2	0
800	56.8	0	33.4	0
1000	56.8	1	28.0	0
1250	58.6	0	24.4	0
1600	60.9	0	22.3	0
2000	60.5	0	23.8	0
2500	59.3	0	26.9	0
3150	62.0	0	23.4	0
4000	62.1	0	21.1	-
5000	64.6	-	14.6	-
6300	71.0	-	10.2	-
8000	71.0	-	10.1	-
10000	67.4	-	10.7	-
Ratings	**STC 55**	**28**	**IIC 57**	**21**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.10			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Engineered Wood, 3/8” (10 mm) **REGUPOL sonus core 5, 3/16" (5 mm)** Concrete, 3" (76 mm) **REGUPOL sonus curve 50, 2" (50 mm)** 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 59	IIC 58	LIIC 58	HIIC 65
Detail				

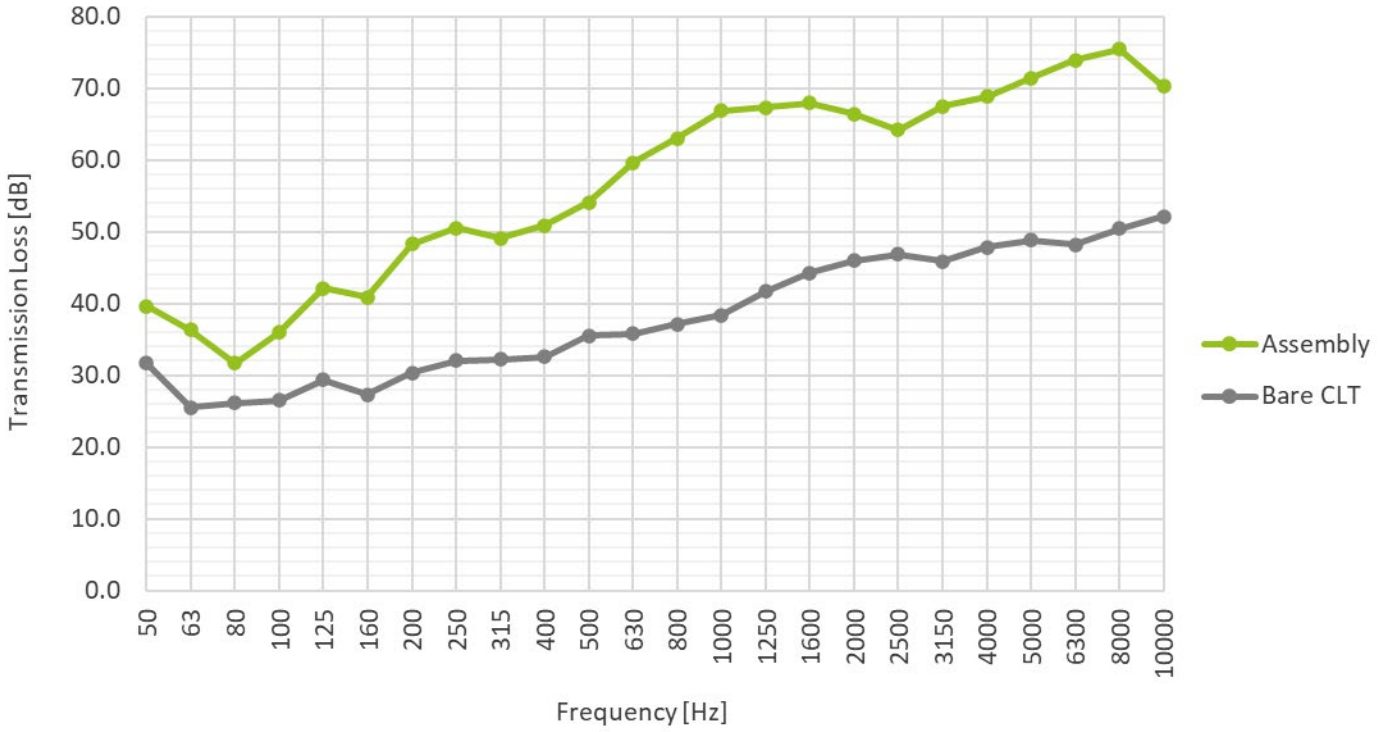
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

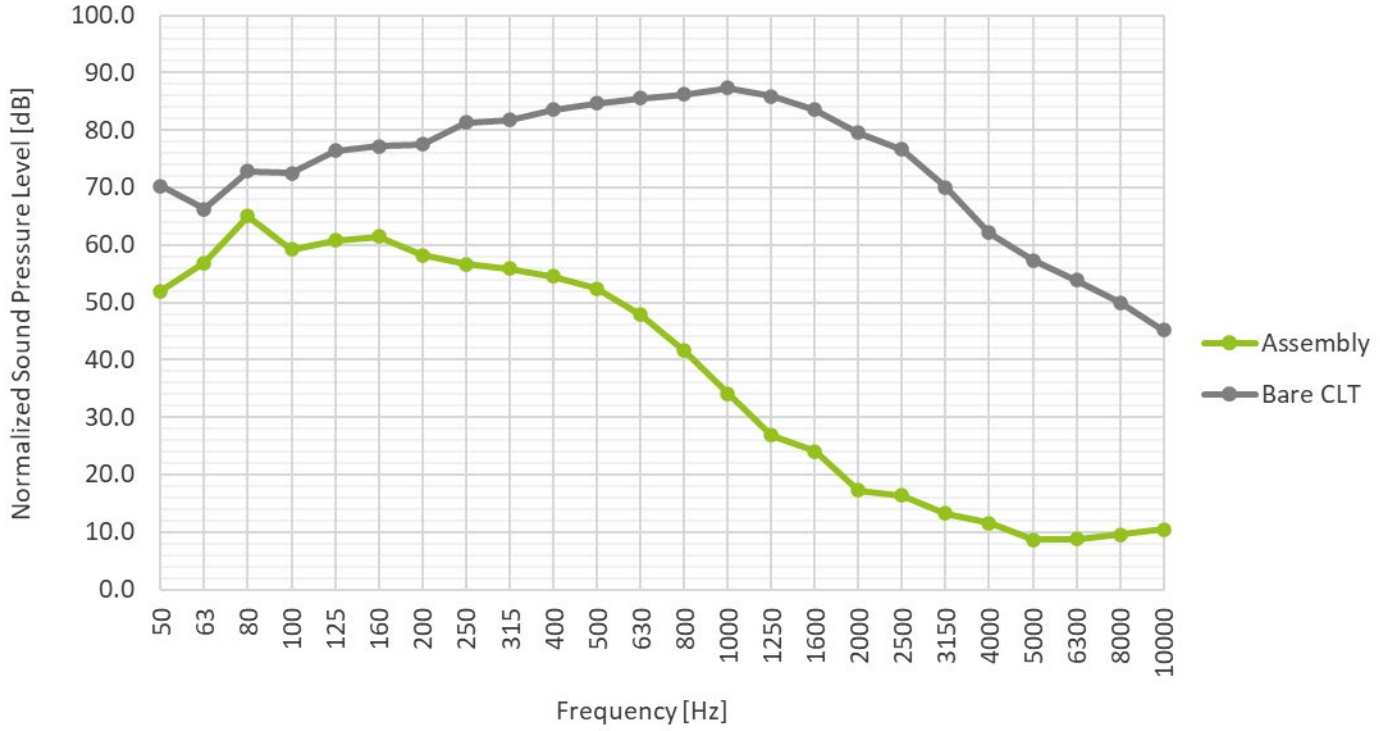
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.10			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 50**, 3" Concrete, **REGUPOL sonus core 5**, Engienered Hardwood			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	39.6	-	52.0	-
63	36.3	-	56.9	-
80	31.7	-	65.0	-
100	36.0	-	59.2	5
125	42.1	1	60.8	7
160	40.9	5	61.5	7
200	48.3	1	58.2	4
250	50.5	1	56.7	3
315	49.1	6	55.9	2
400	50.9	7	54.5	1
500	54.1	5	52.4	0
630	59.6	0	47.8	0
800	63.0	0	41.6	0
1000	66.9	0	34.1	0
1250	67.3	0	26.9	0
1600	67.9	0	24.1	0
2000	66.4	0	17.2	0
2500	64.2	0	16.3	0
3150	67.5	0	13.2	0
4000	68.8	0	11.6	-
5000	71.4	-	8.7	-
6300	73.9	-	8.8	-
8000	75.4	-	9.5	-
10000	70.3	-	10.4	-
Ratings	**STC 59**	**26**	**IIC 58**	**29**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

HARDWOOD FLOOR SURFACE

5 ply 140mm CLT PRODUCT COMPARISON

3” Concrete slab over Sonus curve with hardwood

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. Made in the USA from recycled cars & truck tires are green circle certified for recycled content and qualify for up to 8 LEED points.

Detail	Assembly	Acoustic Rating	
	Concrete slab 3” **sonus curve 10, (10 mm)** CLT – 5 ply 140mm **Sonus core 3** with hardwood	**IIC 55** **HIIC 60** **LIIC 66**	STC 50
	Concrete slab 3” **sonus curve 17, (17 mm)** CLT – 5 ply 140mm **Sonus core 3** with hardwood	**IIC 55** **HIIC 61** **LIIC 62**	STC 52
	Concrete slab 3” **sonus curve 25, (25 mm)** CLT – 5 ply 140mm **Sonus core 3** with hardwood	**IIC 57** **HIIC 66** **LIIC 65**	STC 54
	Concrete slab 3” **sonus curve 50, (50 mm)** CLT – 5 ply 140mm **Sonus core 3** with hardwood	**IIC 63** **HIIC 72** **LIIC 69**	STC 57

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.12			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 3, 3 mm Concrete Topping, 3” sonus curve 10, 10 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 50	IIC 55	HIIC 60	LIIC 66
Detail				

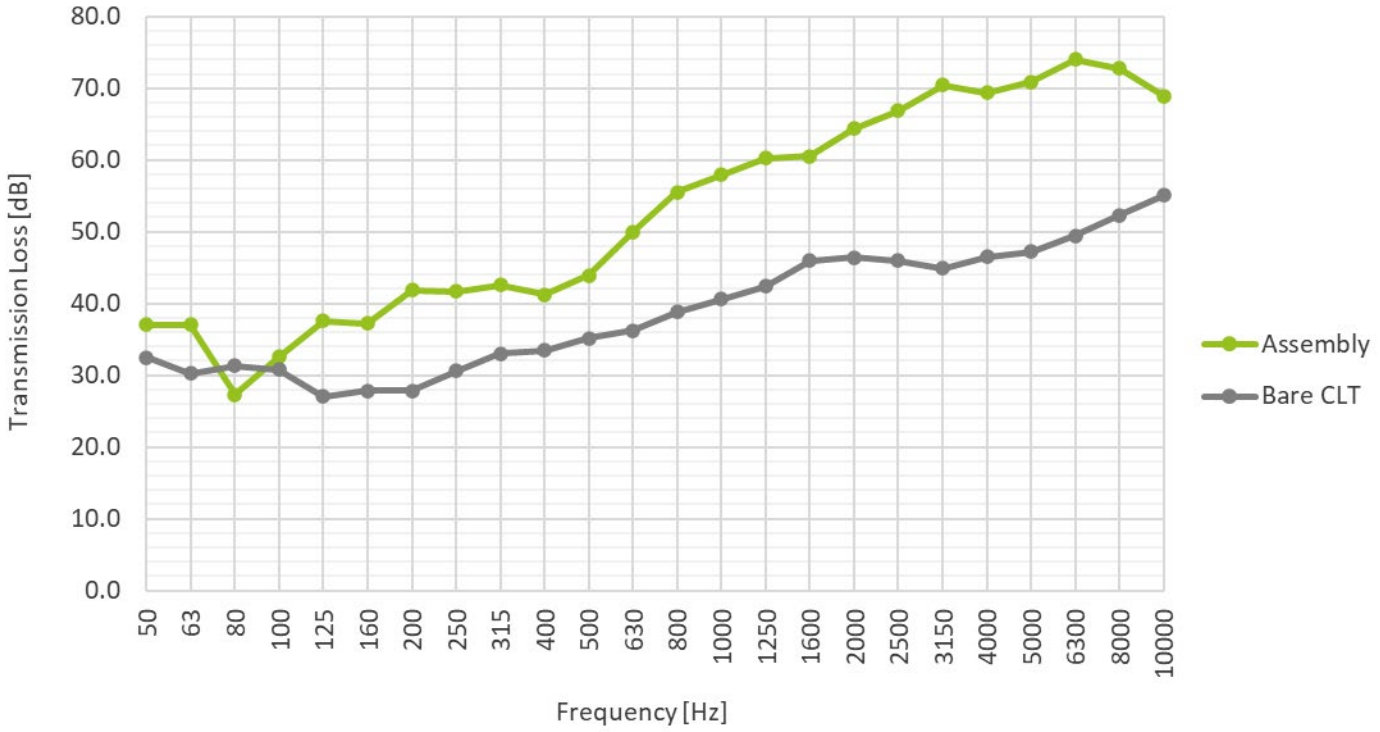
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

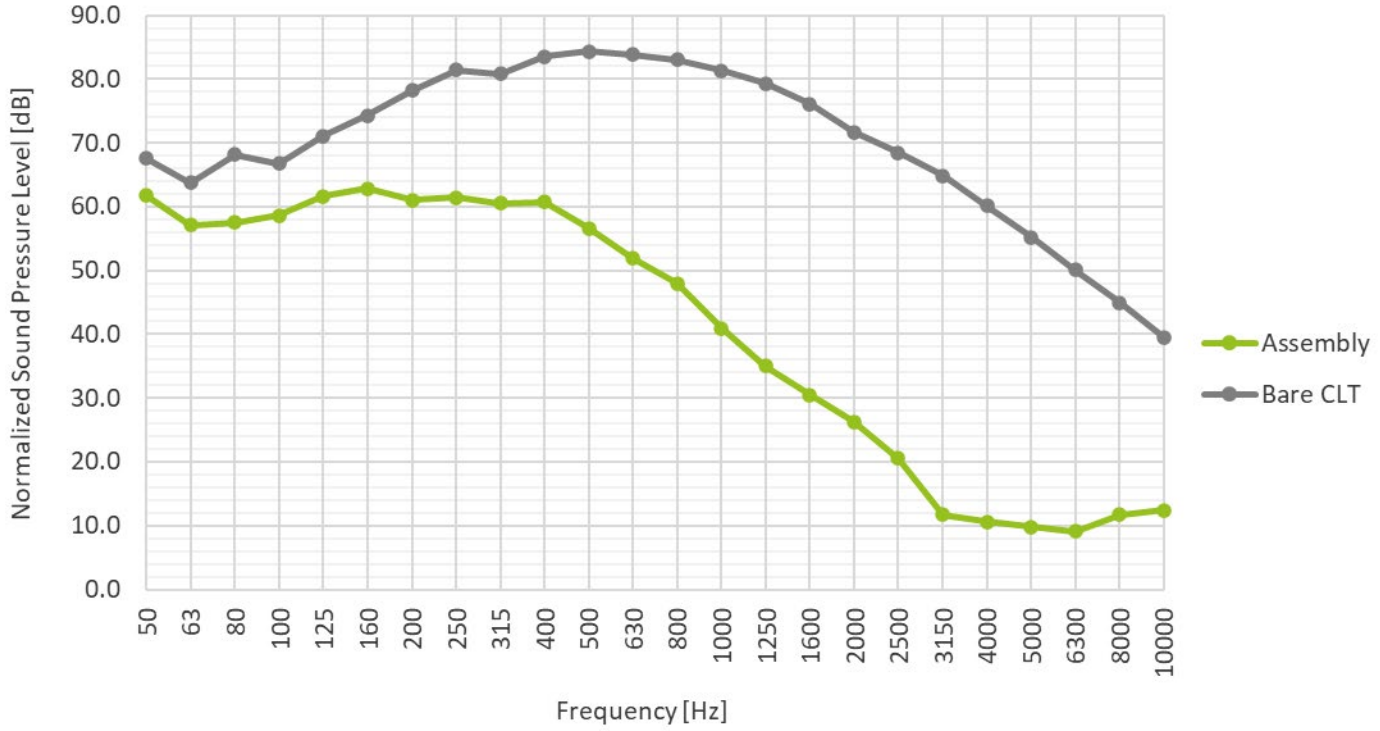
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.12			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 3**, 3" Concrete Topping, **sonus curve 10**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	37.0	-	61.7	-
63	37.0	-	57.1	-
80	27.3	-	57.5	-
100	32.6	-	58.6	2
125	37.6	0	61.6	5
160	37.2	0	62.8	6
200	41.9	0	61.0	4
250	41.7	1	61.4	4
315	42.6	3	60.5	4
400	41.2	8	60.7	5
500	43.9	6	56.6	2
630	50.0	1	51.9	0
800	55.5	0	48.0	0
1000	57.9	0	40.9	0
1250	60.3	0	35.0	0
1600	60.5	0	30.5	0
2000	64.4	0	26.3	0
2500	66.9	0	20.5	0
3150	70.4	0	11.7	0
4000	69.4	0	10.6	-
5000	70.9	-	9.8	-
6300	74.0	-	9.1	-
8000	72.8	-	11.7	-
10000	68.9	-	12.4	-
Ratings	**STC 50**	**19**	**IIC 55**	**32**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.03			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 3, 3 mm Concrete Topping, 3” sonus curve 17, 17 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 52	IIC 55	HIIC 61	LIIC 62
Detail				

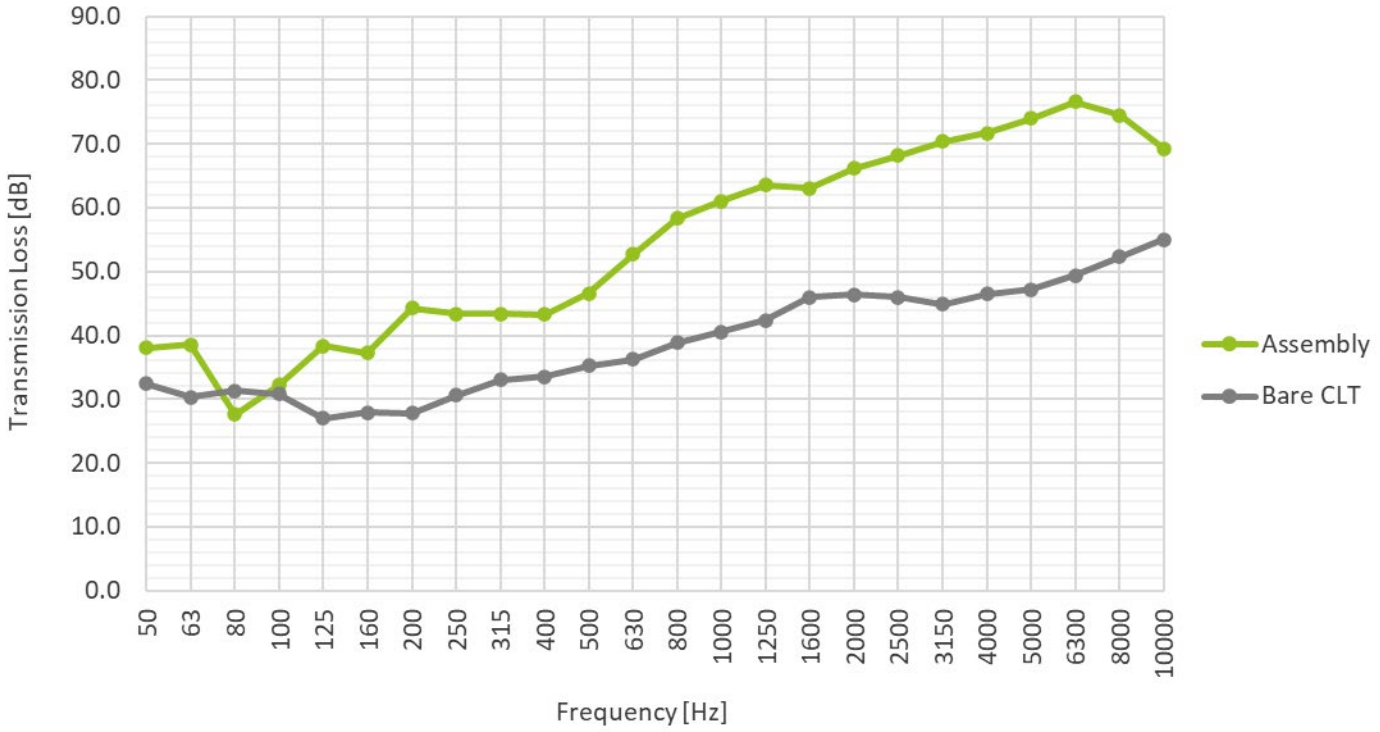
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

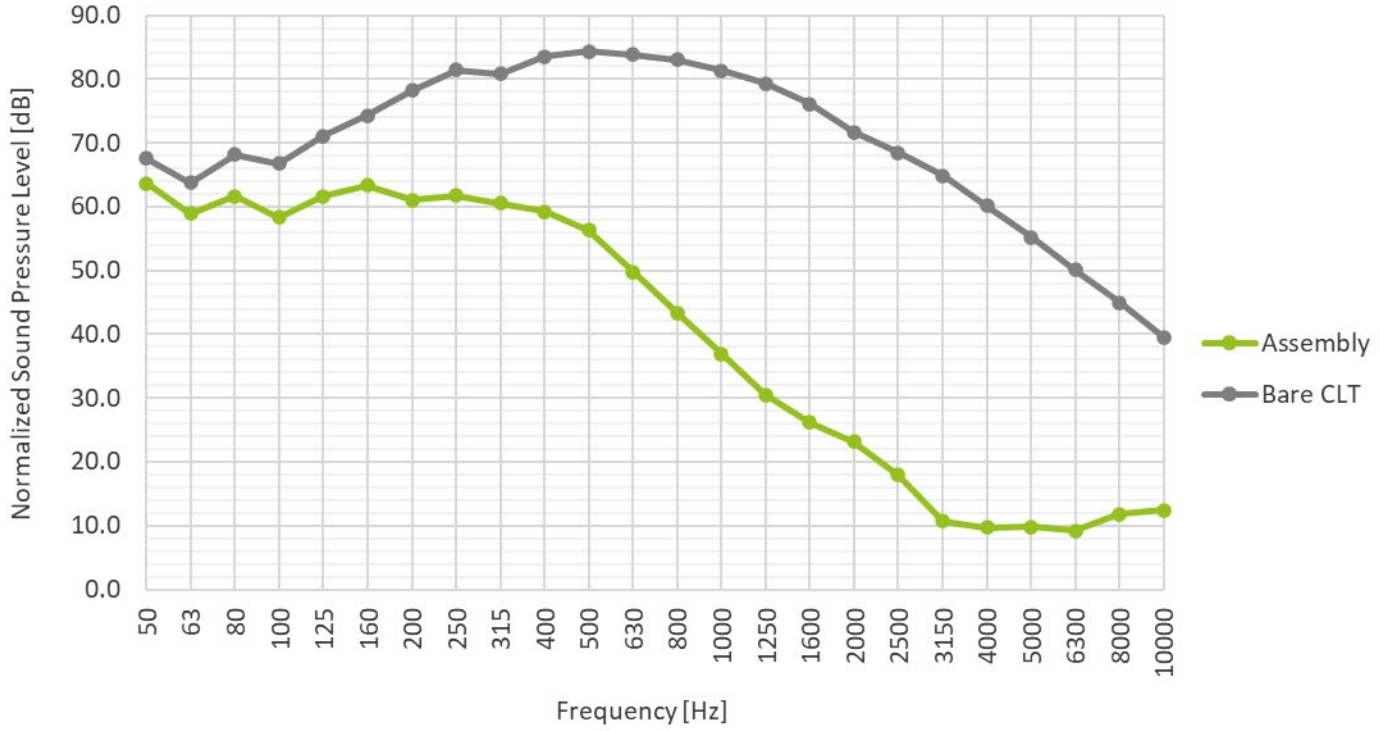
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.03			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 3**, 3" Concrete Topping, **sonus curve 17**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	38.1	-	63.6	-
63	38.6	-	58.9	-
80	27.6	-	61.6	-
100	32.2	-	58.3	1
125	38.4	0	61.6	5
160	37.2	2	63.3	6
200	44.3	0	61.0	4
250	43.4	2	61.7	5
315	43.4	5	60.5	3
400	43.3	8	59.2	3
500	46.6	5	56.3	1
630	52.7	0	49.8	0
800	58.3	0	43.4	0
1000	61.1	0	36.9	0
1250	63.6	0	30.5	0
1600	63.1	0	26.2	0
2000	66.2	0	23.2	0
2500	68.2	0	17.9	0
3150	70.4	0	10.7	0
4000	71.7	0	9.7	-
5000	74.0	-	9.8	-
6300	76.6	-	9.2	-
8000	74.5	-	11.8	-
10000	69.3	-	12.4	-
Ratings	**STC 52**	**22**	**IIC 55**	**28**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

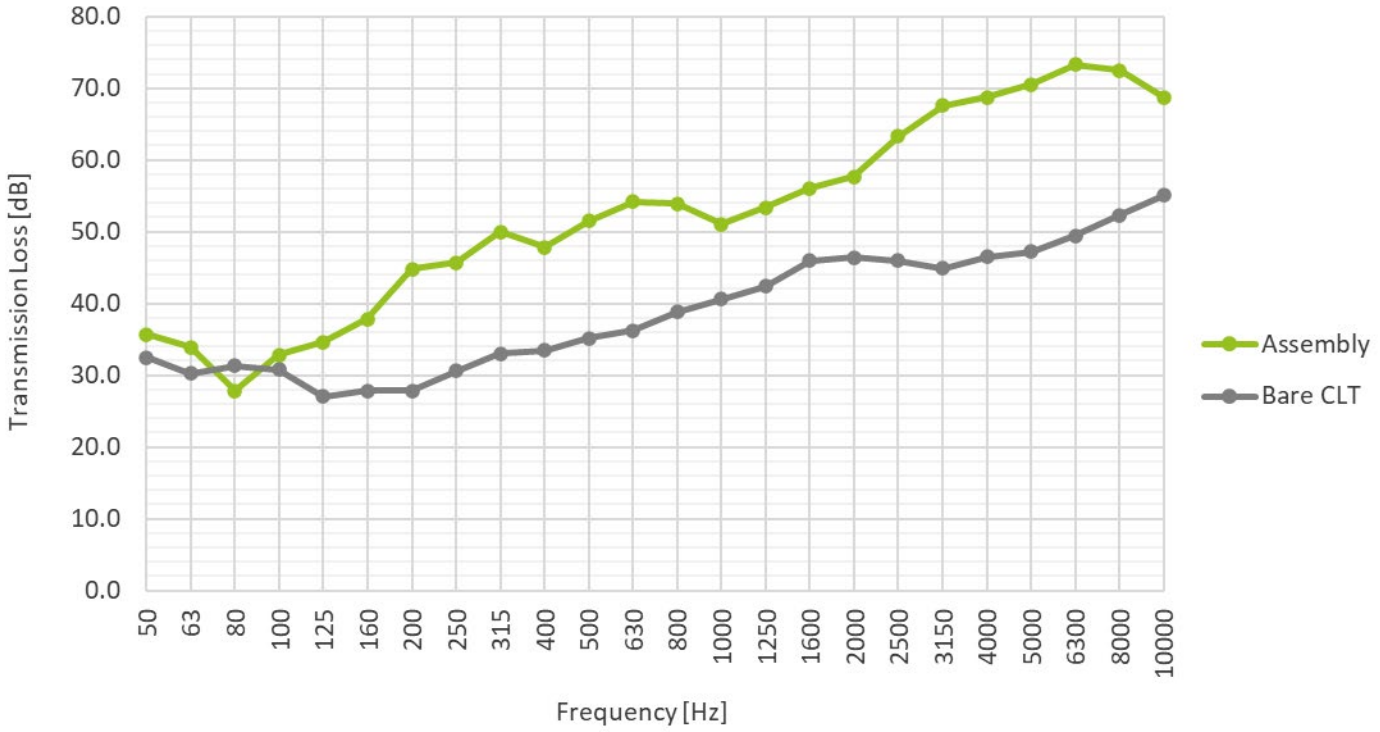
Test Number	R4267.17			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 3, 3 mm Concrete Topping, 3” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 54	IIC 57	HIIC 66	LIIC 65
Detail				

Please contact us to request a copy of the official test report from Intertek.

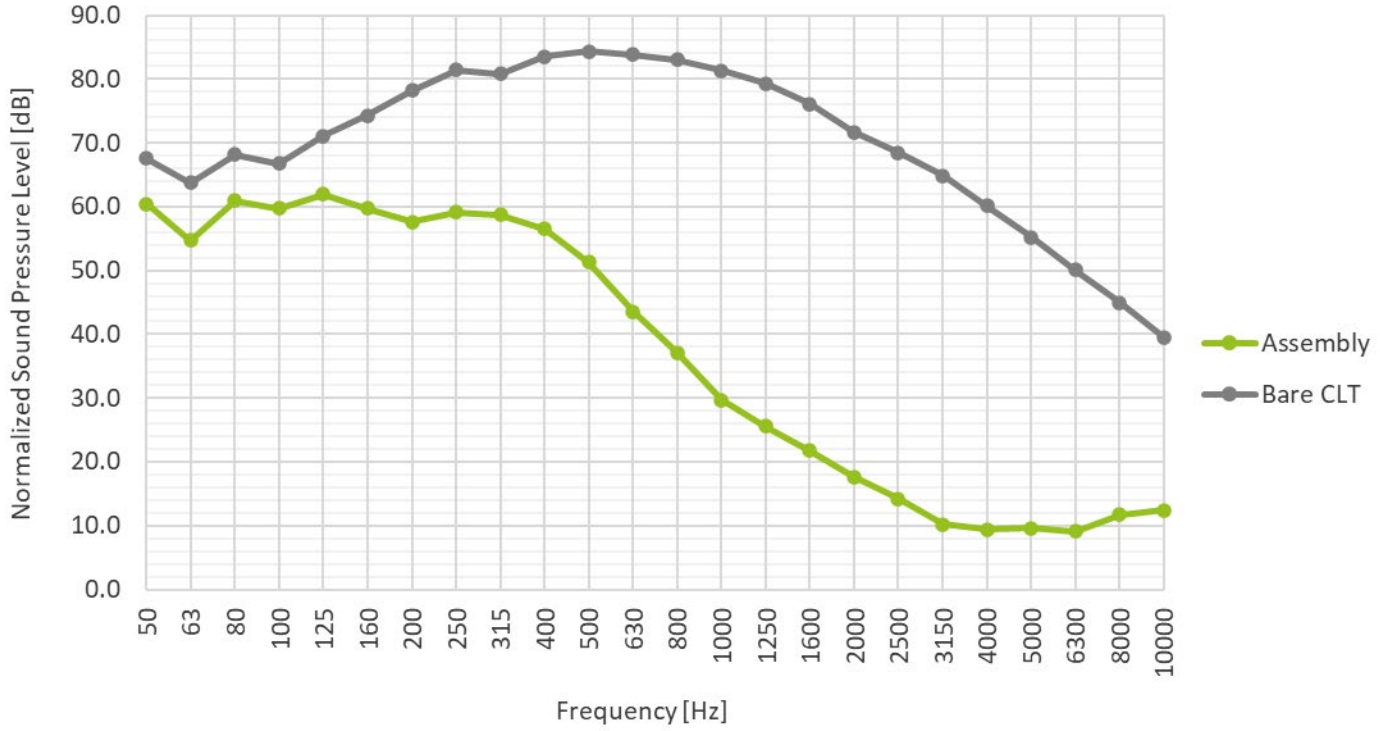
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.17			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 3**, 3" Concrete Topping, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	36.2	-	61.5	-
63	35.7	-	56.6	-
80	27.1	-	61.9	-
100	32.2	-	60.3	6
125	36.1	2	61.6	8
160	37.4	4	59.4	5
200	44.6	0	57.4	3
250	44.3	3	58.0	4
315	47.3	3	57.5	4
400	44.8	8	54.7	2
500	46.5	8	48.8	0
630	51.9	3	42.0	0
800	57.8	0	33.9	0
1000	60.5	0	26.0	0
1250	62.6	0	21.6	0
1600	65.3	0	16.6	0
2000	65.6	0	12.2	0
2500	67.2	0	8.4	0
3150	69.6	0	5.8	0
4000	71.2	0	7.1	-
5000	71.2	-	8.7	-
6300	73.6	-	8.8	-
8000	71.9	-	11.7	-
10000	68.3	-	12.3	-
Ratings	**STC 54**	**30**	**IIC 57**	**30**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

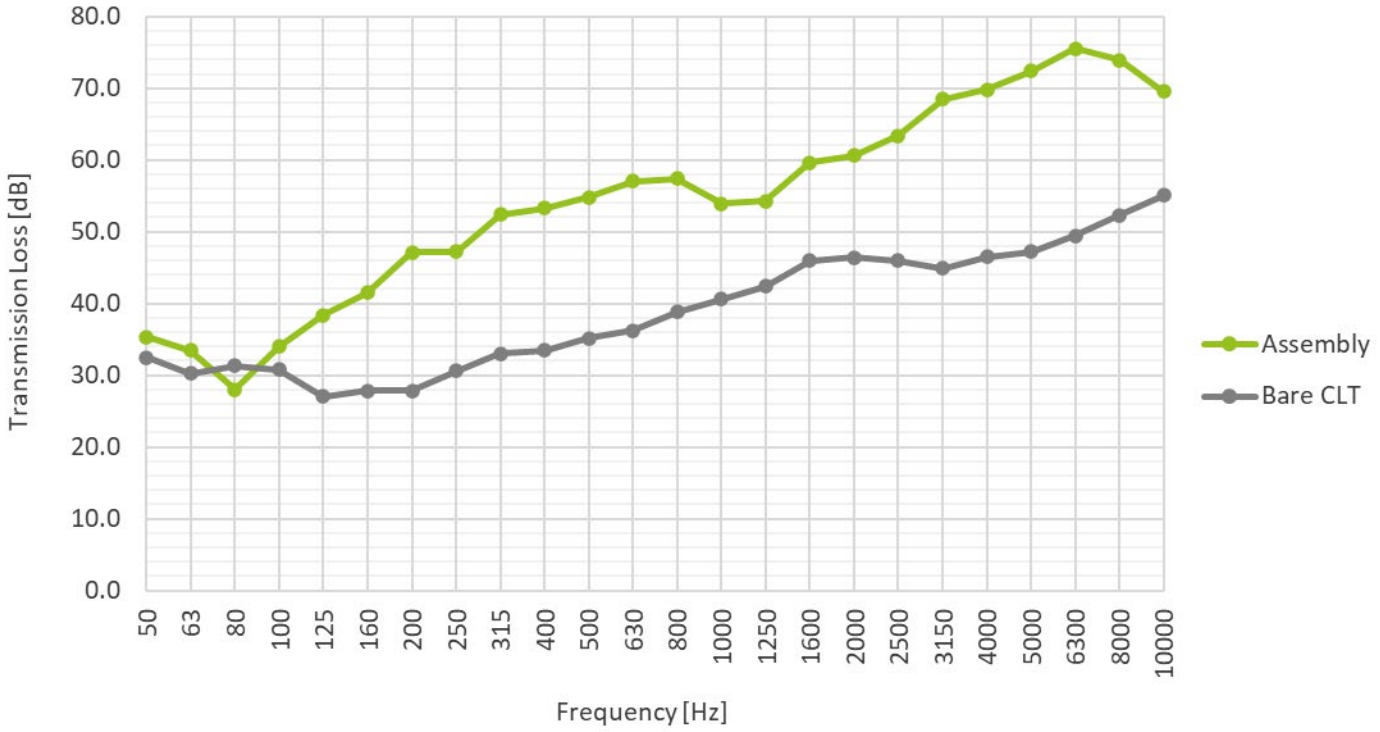
Test Number	R4267.22			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 3, 3 mm Concrete Topping, 3” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 57	IIC 63	HIIC 72	LIIC 69
Detail				

Please contact us to request a copy of the official test report from Intertek.

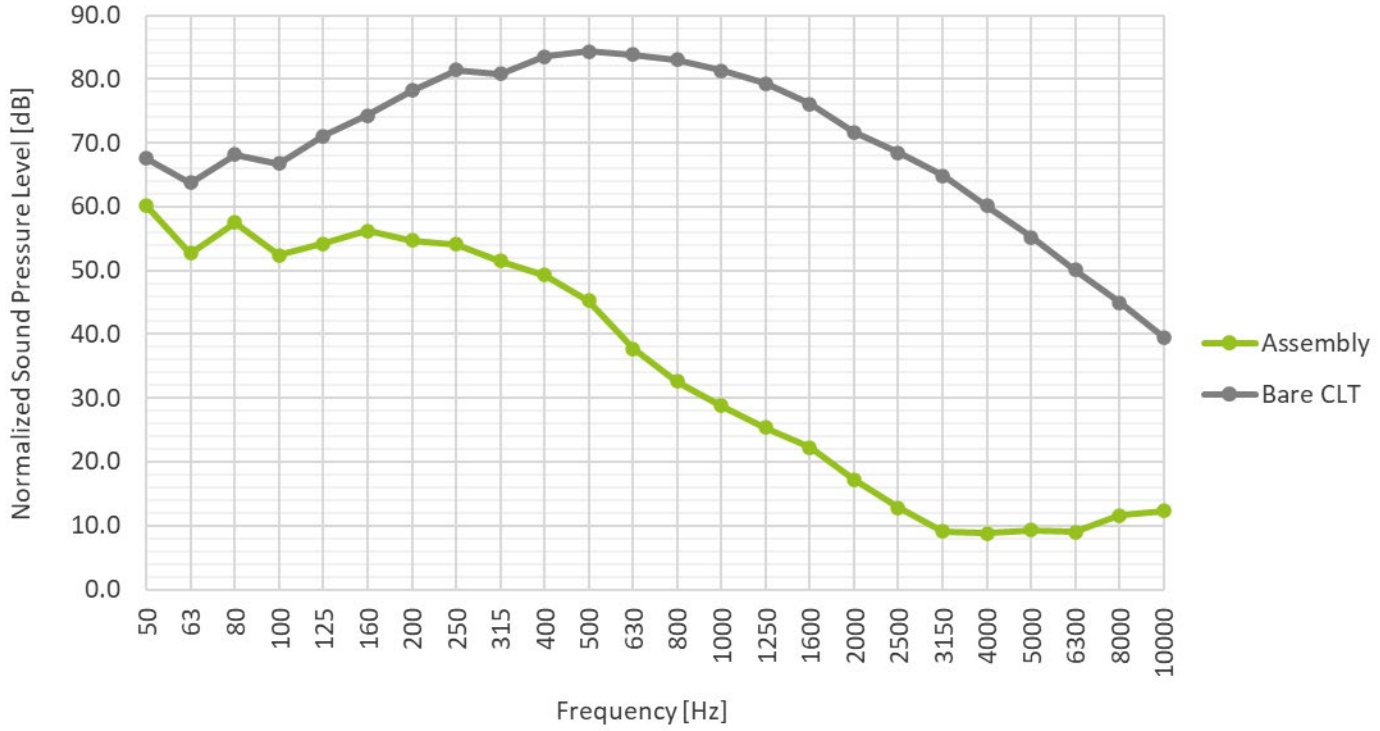
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.22			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 3**, 3" Concrete Topping, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	35.3	-	60.1	-
63	33.5	-	52.7	-
80	28.0	-	57.5	-
100	34.0	-	52.4	3
125	38.4	3	54.2	5
160	41.5	3	56.2	7
200	47.1	0	54.7	6
250	47.2	3	54.1	5
315	52.4	1	51.5	3
400	53.3	3	49.3	1
500	54.8	2	45.3	0
630	57.0	1	37.7	0
800	57.4	2	32.6	0
1000	53.9	6	28.8	0
1250	54.3	7	25.4	0
1600	59.6	1	22.3	0
2000	60.6	0	17.2	0
2500	63.4	0	12.8	0
3150	68.5	0	9.1	0
4000	69.8	0	8.8	-
5000	72.4	-	9.3	-
6300	75.5	-	9.0	-
8000	73.9	-	11.6	-
10000	69.5	-	12.3	-
Ratings	**STC 57**	**32**	**IIC 63**	**30**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

HARDWOOD FLOOR SURFACE

5 ply 140mm CLT PRODUCT COMPARISON

EXACOR Dry Screed over Sonus curve with hardwood

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. EXACOR is a ½" dry screed board that weighs 2.7lbs PSF and is glued and screwed to each other. Tested in 2 or 3 layers 1" or 1.5" thickness.

Detail	Assembly	Acoustic Rating	
	**EXACOR** dry screed **1"** **sonus curve 25, (25 mm)** CLT – 5 ply 140mm **sonus core 3** with hardwood	**IIC 52** **HIIC 69** **LIIC 50**	STC 52
	**EXACOR** dry screed **1.5"** **sonus curve 50, (50 mm)** CLT – 5 ply 140mm **sonus core 3** with hardwood	**IIC 53** **HIIC 69** **LIIC 55**	STC 53
	**EXACOR** dry screed **1.5"** **sonus curve 50, (50 mm)** CLT – 5 ply 140mm **sonus core 3** with hardwood	**IIC 55** **HIIC 73** **LIIC 53**	STC 59
	**EXACOR** dry screed **1.5"** **sonus curve 50, (50 mm)** CLT – 5 ply 140mm **sonus core 10** with hardwood	**IIC 56** **HIIC 77** **LIIC 51**	STC 58

TEST REPORT

ACOUSTICAL PERFORMANCE

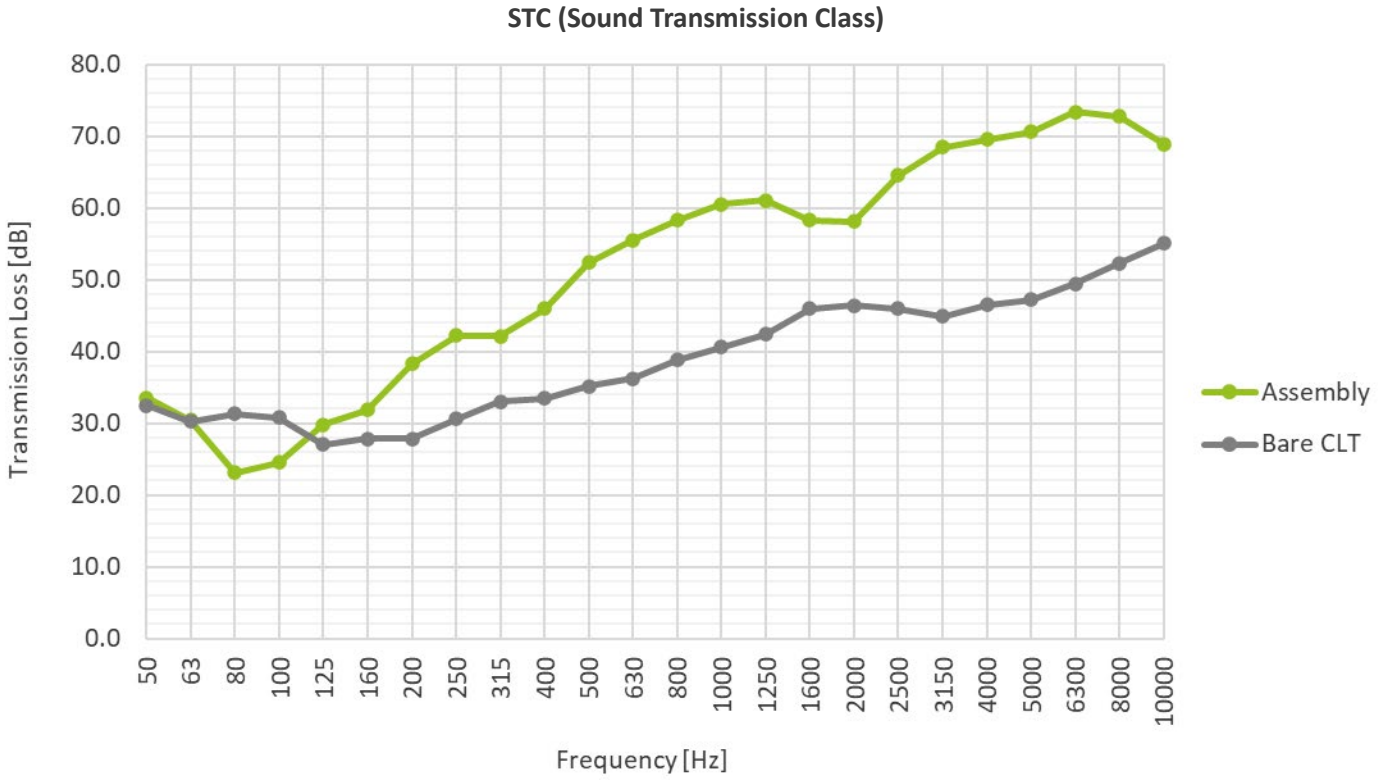
Test Number	R4167.34			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Hardwood sonus core 3, 3 mm EXACOR, 1” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 52	IIC 52	HIIC 69	LIIC 50
Detail				

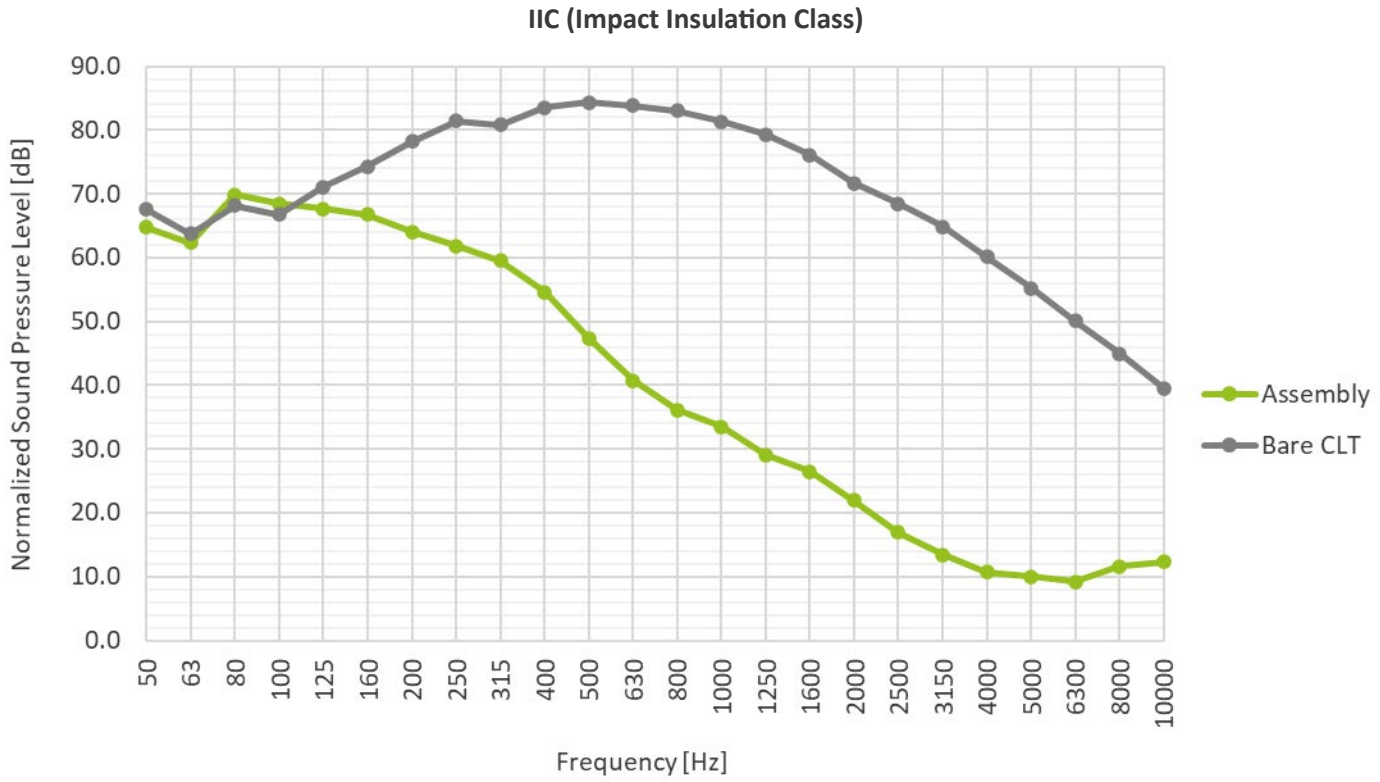
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE





TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.34			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Hardwood, **sonus core 3**, 1" EXACOR, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	33.6	-	64.7	-
63	30.4	-	62.3	-
80	23.1	-	69.9	-
100	24.5	-	68.5	8
125	29.8	6	67.7	8
160	31.9	7	66.8	7
200	38.3	4	64.0	4
250	42.2	3	61.8	2
315	42.1	6	59.5	0
400	46.0	5	54.6	0
500	52.4	0	47.4	0
630	55.5	0	40.7	0
800	58.3	0	36.1	0
1000	60.5	0	33.5	0
1250	61.1	0	29.1	0
1600	58.3	0	26.5	0
2000	58.1	0	22.0	0
2500	64.5	0	16.9	0
3150	68.5	0	13.4	0
4000	69.5	0	10.7	-
5000	70.6	-	10.0	-
6300	73.4	-	9.2	-
8000	72.8	-	11.6	-
10000	68.9	-	12.3	-
Ratings	**STC 52**	**31**	**IIC 52**	**29**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.30			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Hardwood sonus core 3, 3 mm EXACOR, 1-1/2” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 53	IIC 53	HIIC 69	LIIC 55
Detail				

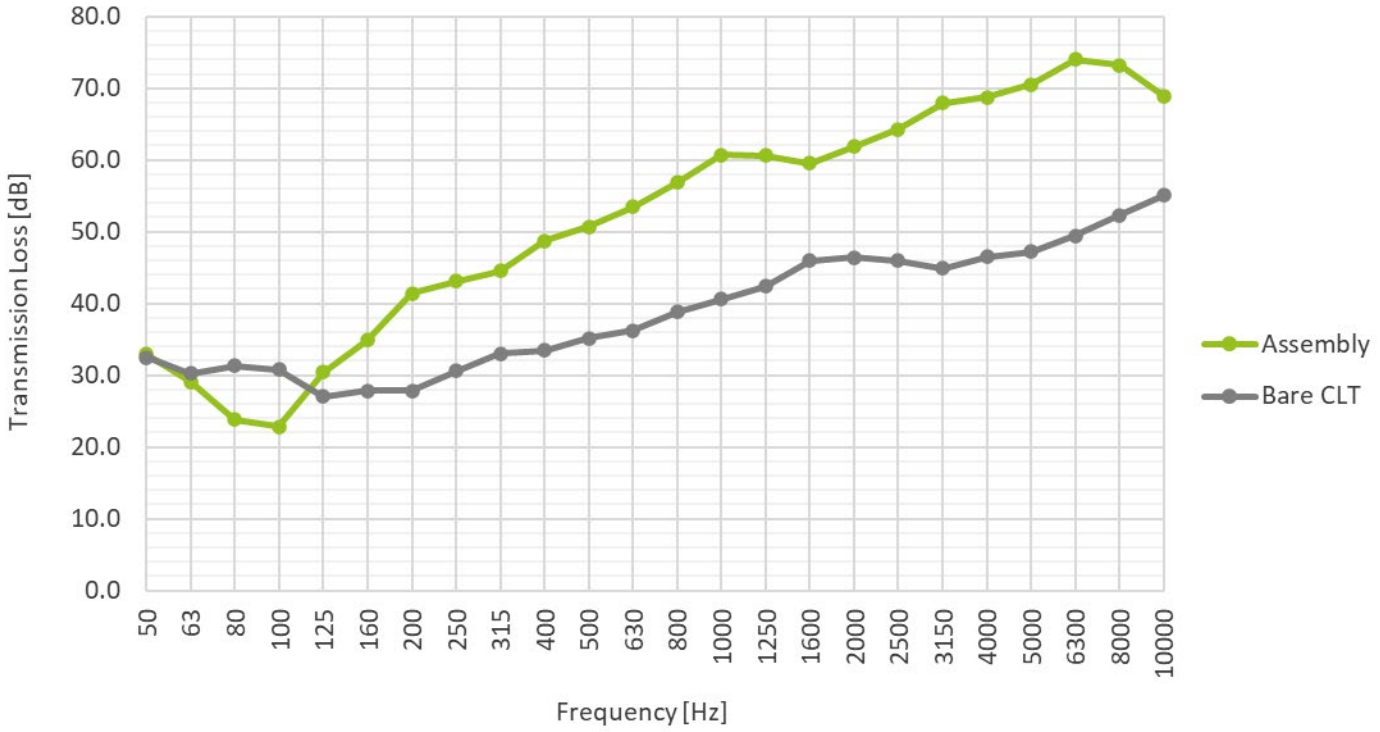
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

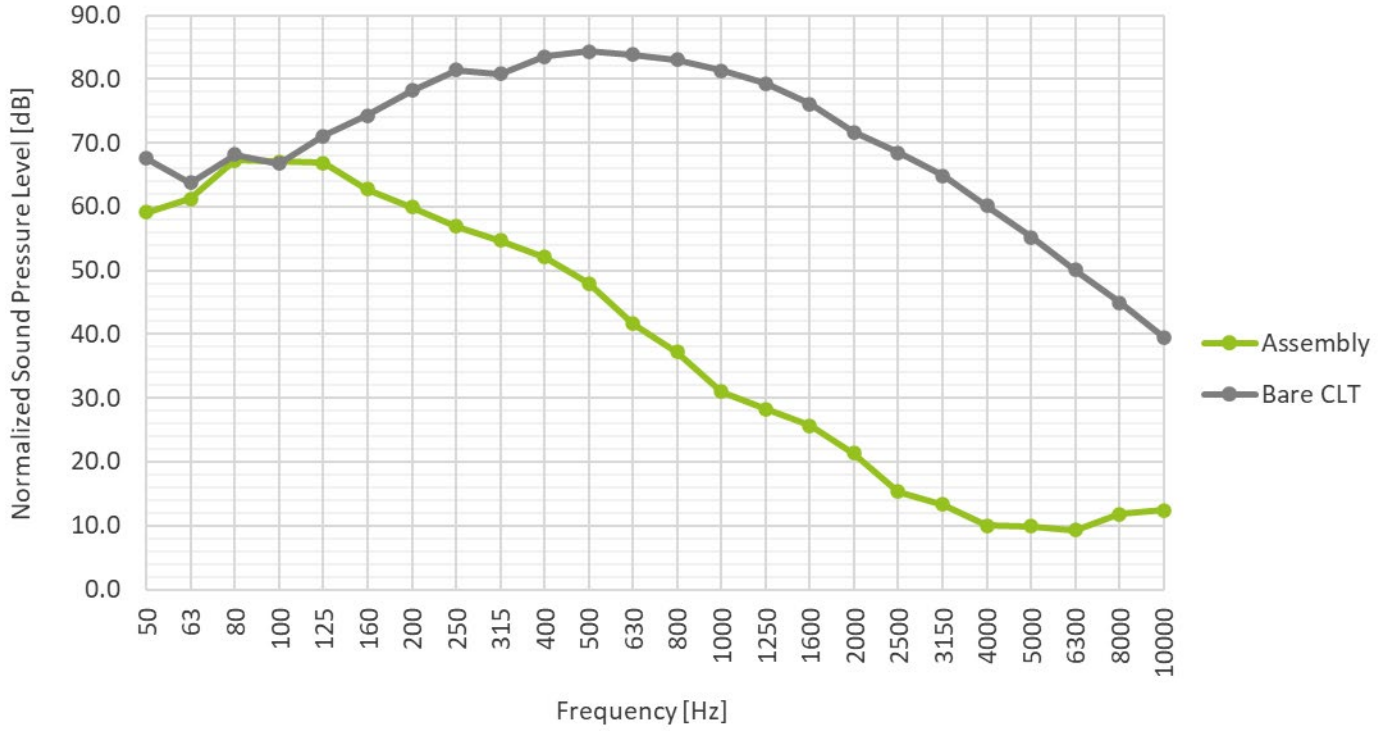
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.30			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Hardwood, **sonus core 3**, 1-1/2" EXACOR, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.9	-	59.1	-
63	29.1	-	61.2	-
80	23.8	-	67.3	-
100	22.8	-	67.1	8
125	30.4	7	66.9	8
160	34.9	5	62.7	4
200	41.4	2	59.9	1
250	43.1	3	56.9	0
315	44.5	5	54.7	0
400	48.7	3	52.1	0
500	50.7	2	48.0	0
630	53.5	0	41.6	0
800	56.9	0	37.2	0
1000	60.7	0	31.0	0
1250	60.6	0	28.3	0
1600	59.5	0	25.7	0
2000	61.9	0	21.3	0
2500	64.3	0	15.3	0
3150	67.9	0	13.3	0
4000	68.7	0	10.0	-
5000	70.5	-	9.9	-
6300	74.0	-	9.3	-
8000	73.2	-	11.8	-
10000	68.9	-	12.4	-
Ratings	**STC 53**	**27**	**IIC 53**	**21**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

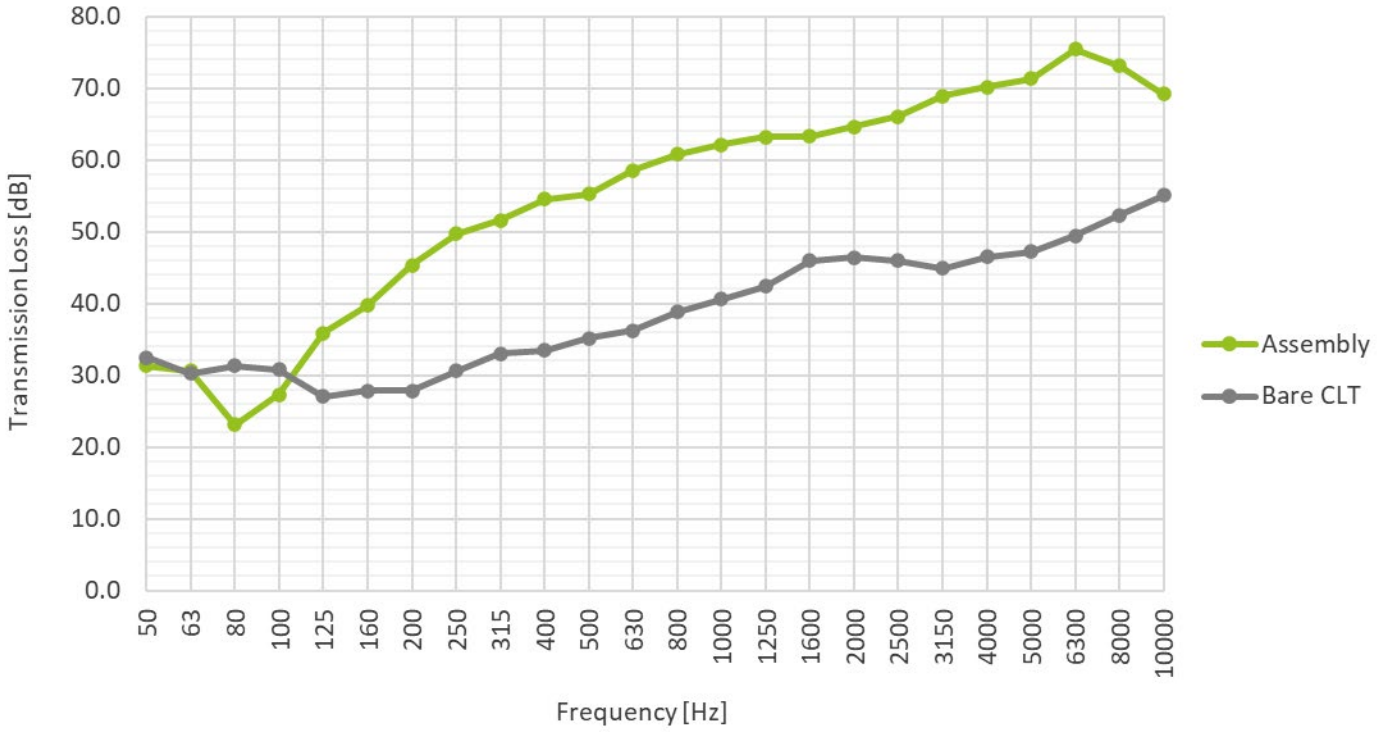
Test Number	R4267.35			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 3, 3 mm EXACOR, 1-1/2” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 59	IIC 55	HIIC 73	LIIC 53
Detail				

Please contact us to request a copy of the official test report from Intertek.

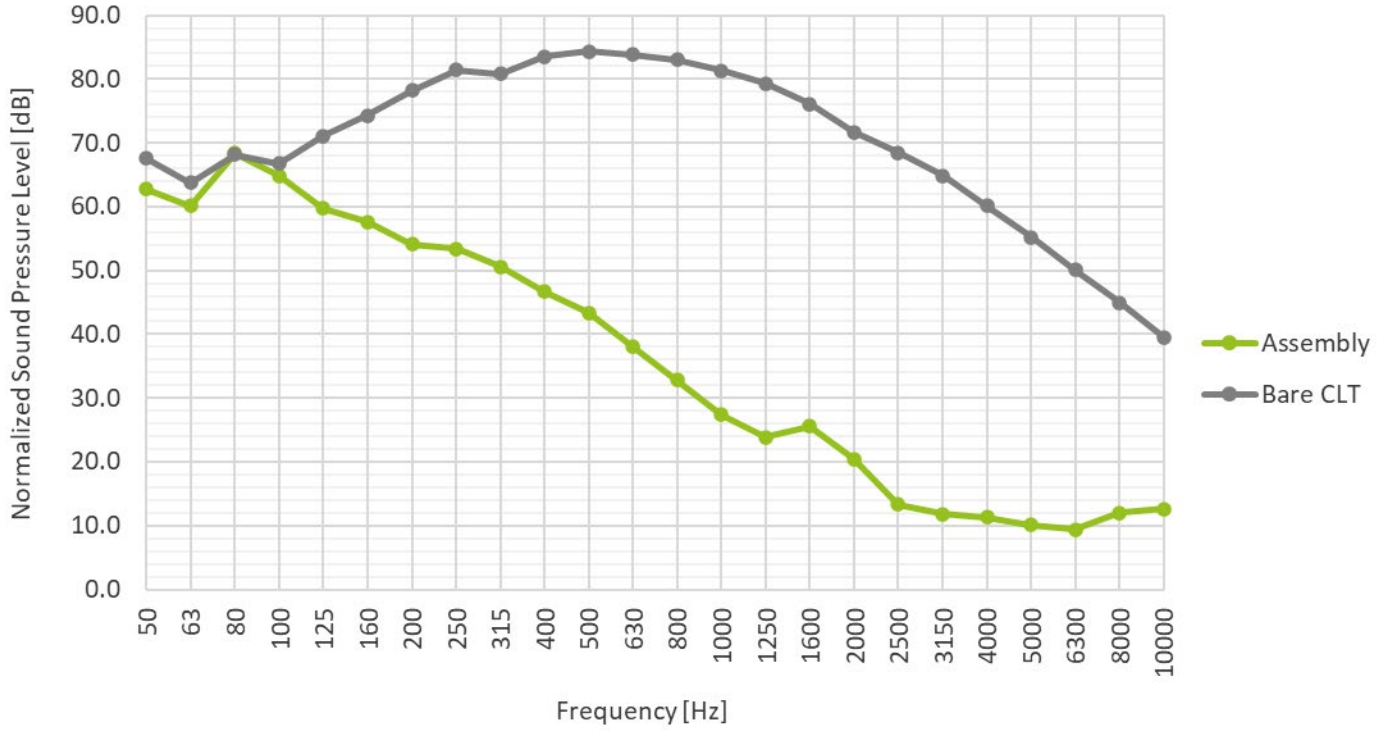
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.35			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 3**, 1-1/2" EXACOR, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.3	-	62.7	-
63	30.6	-	60.1	-
80	23.1	-	68.4	-
100	27.3	-	64.9	8
125	35.9	7	59.7	3
160	39.7	6	57.6	1
200	45.3	4	54.1	0
250	49.7	2	53.4	0
315	51.6	3	50.6	0
400	54.5	3	46.7	0
500	55.3	4	43.4	0
630	58.6	1	38.0	0
800	60.8	0	32.8	0
1000	62.1	0	27.4	0
1250	63.2	0	23.9	0
1600	63.3	0	25.6	0
2000	64.6	0	20.4	0
2500	66.1	0	13.3	0
3150	68.9	0	11.8	0
4000	70.2	0	11.3	-
5000	71.3	-	10.1	-
6300	75.4	-	9.4	-
8000	73.1	-	12.0	-
10000	69.2	-	12.6	-
Ratings	**STC 59**	**30**	**IIC 55**	**12**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

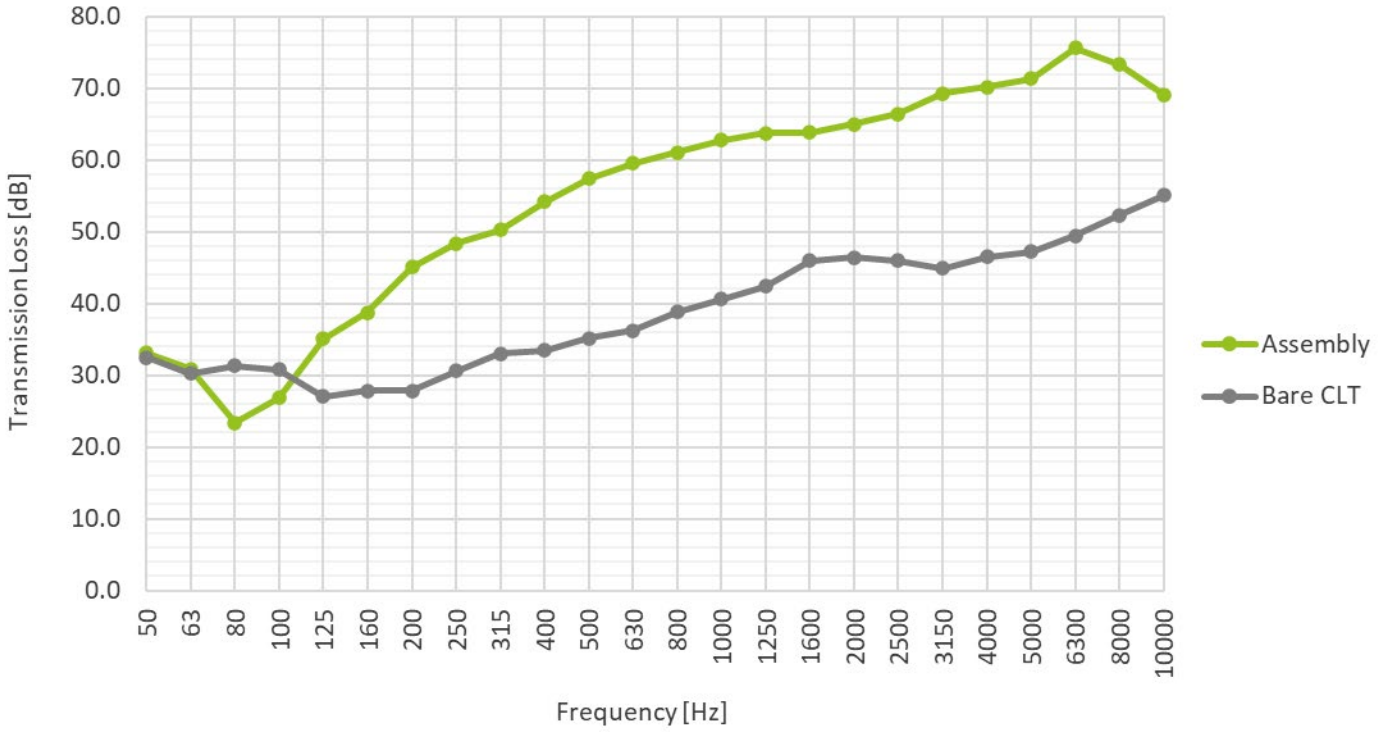
Test Number	R4267.37			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 10, 10 mm EXACOR, 1-1/2” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 58	IIC 56	HIIC 77	LIIC 50
Detail				

Please contact us to request a copy of the official test report from Intertek.

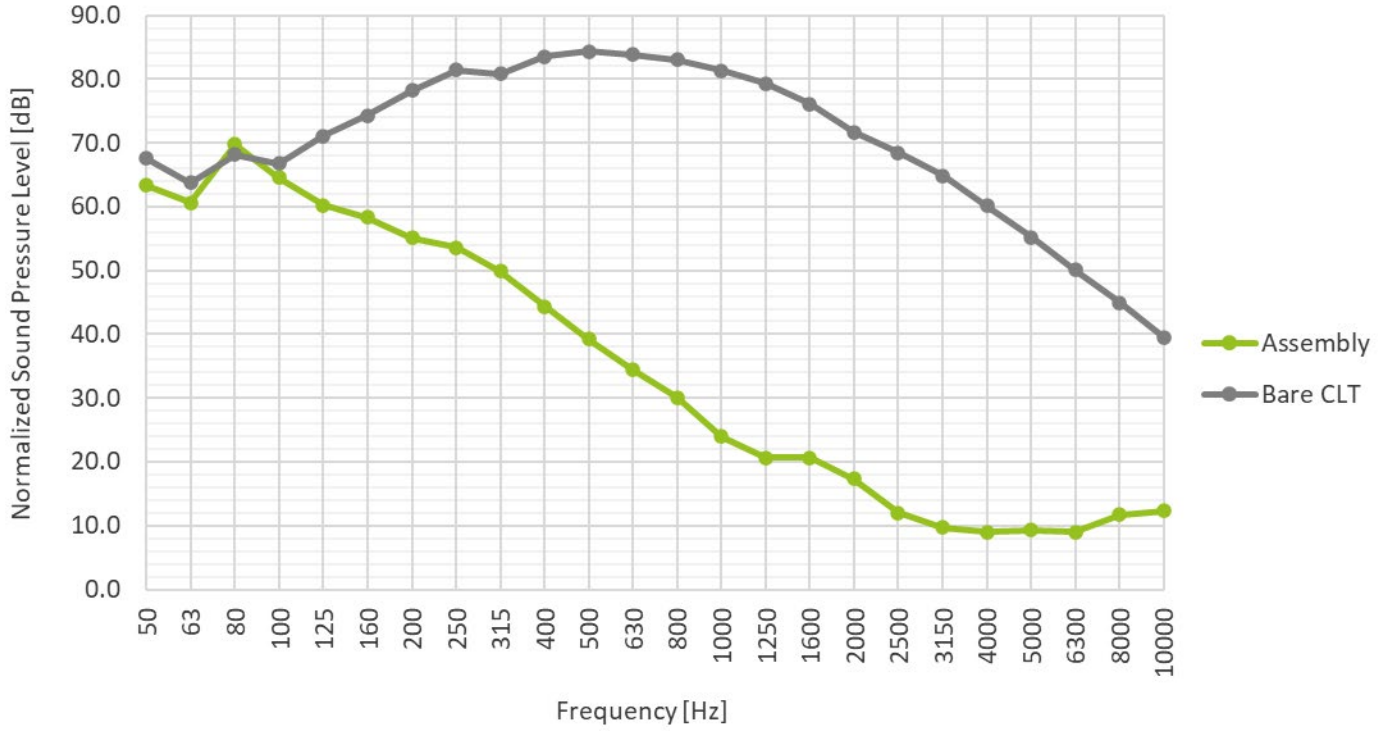
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.37			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 10**, 1-1/2" EXACOR, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	33.1	-	63.3	-
63	30.9	-	60.6	-
80	23.4	-	69.8	-
100	26.9	-	64.5	8
125	35.1	7	60.2	4
160	38.7	6	58.3	2
200	45.1	3	55.1	0
250	48.4	3	53.6	0
315	50.3	4	49.9	0
400	54.2	3	44.4	0
500	57.4	1	39.2	0
630	59.5	0	34.4	0
800	61.1	0	30.1	0
1000	62.8	0	24.0	0
1250	63.7	0	20.6	0
1600	63.8	0	20.6	0
2000	65.0	0	17.3	0
2500	66.4	0	12.0	0
3150	69.3	0	9.7	0
4000	70.2	0	9.0	-
5000	71.3	-	9.3	-
6300	75.6	-	9.0	-
8000	73.3	-	11.7	-
10000	69.1	-	12.3	-
Ratings	**STC 58**	**27**	**IIC 56**	**14**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

LVT FLOOR SURFACE

3 ply 105mm CLT PRODUCT COMPARISON

3” Concrete slab over Sonus curve w/click LVT (vinyl)

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. Made in the USA from recycled cars & truck tires are green circle certified for recycled content and qualify for up to 8 LEED points.

Detail	Assembly	Acoustic Rating	
	Concrete slab 3” **sonus curve 17, (17 mm)** CLT – 3 ply 105mm **sonus core 3** with click LVT	**IIC 54** **LIIC 62** **HIIC 65**	STC 53
	Concrete slab 3” **sonus curve 25, (25 mm)** CLT – 3 ply 105mm **sonus core 5** with click LVT	**IIC 57** **LIIC 74** **HIIC 68**	STC 55
	Concrete slab 3” **sonus curve 50, (50 mm)** CLT – 3 ply 105mm **sonus core 3** with click LVT	**IIC 58** **LIIC 56** **HIIC 67**	STC 59

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.07			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Click-Lock LVT, 7/32" (5.5 mm) REGUPOL sonus core 3, 1/8" (3 mm) Concrete, 3" (76 mm) REGUPOL sonus curve 17, 21/32" (17 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 53	IIC 54	LIIC 62	HIIC 65
Detail				

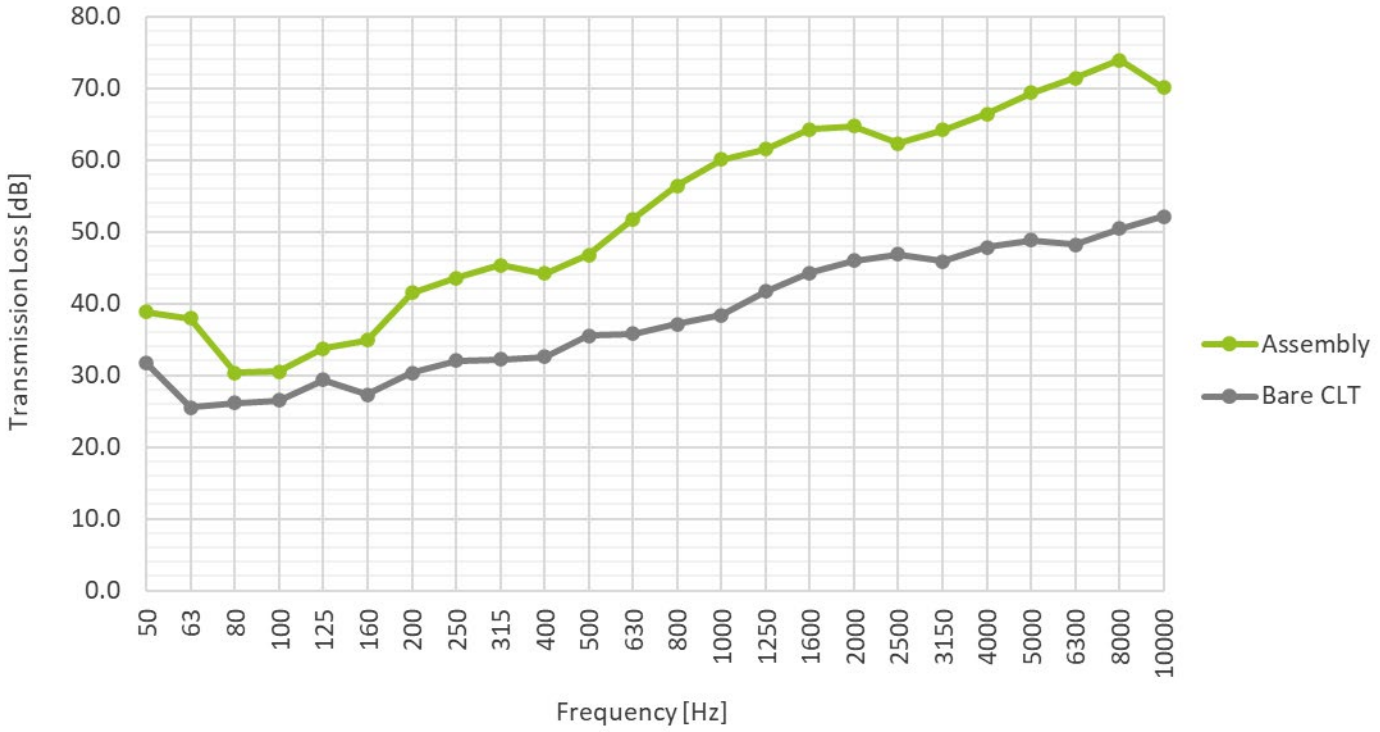
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

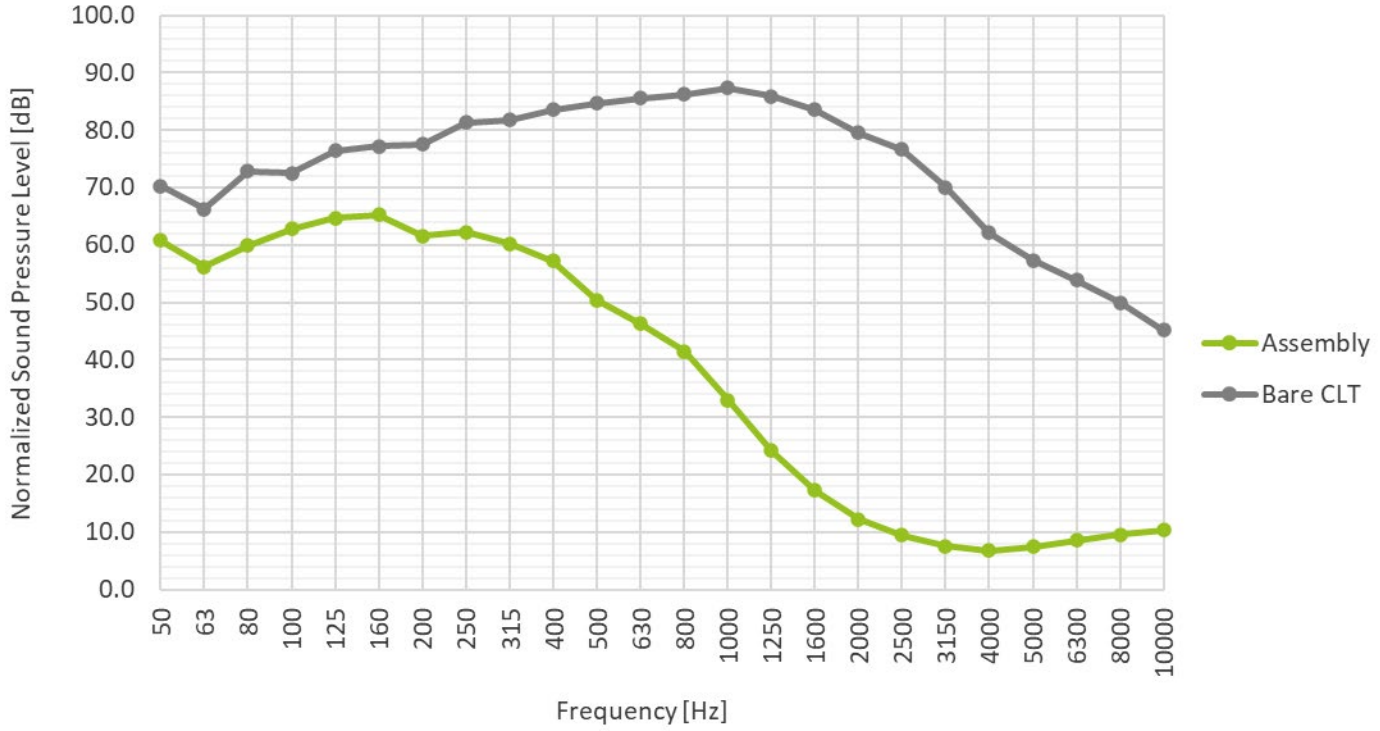
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.07			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 17**, 3" Concrete, **REGUPOL sonus core 3**, Click-Lock LVT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	38.8	-	60.8	-
63	37.9	-	56.2	-
80	30.3	-	59.9	-
100	30.5	-	62.8	5
125	33.7	3	64.7	7
160	34.9	5	65.2	7
200	41.5	1	61.6	4
250	43.6	2	62.2	4
315	45.3	4	60.2	2
400	44.2	8	57.2	0
500	46.8	6	50.4	0
630	51.8	2	46.3	0
800	56.4	0	41.5	0
1000	60.1	0	33.0	0
1250	61.5	0	24.2	0
1600	64.3	0	17.3	0
2000	64.7	0	12.2	0
2500	62.3	0	9.4	0
3150	64.2	0	7.5	0
4000	66.4	0	6.7	-
5000	69.4	-	7.4	-
6300	71.4	-	8.5	-
8000	73.9	-	9.5	-
10000	70.1	-	10.3	-
Ratings	**STC 53**	**31**	**IIC 54**	**29**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.03			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Click-Lock LVT,7/32" (5.5 mm) REGUPOL sonus core 5, 3/16" (5 mm) Concrete, 3" (76 mm) REGUPOL sonus curve, 1" (25 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 55	IIC 57	LIIC 74	HIIC 68
Detail				

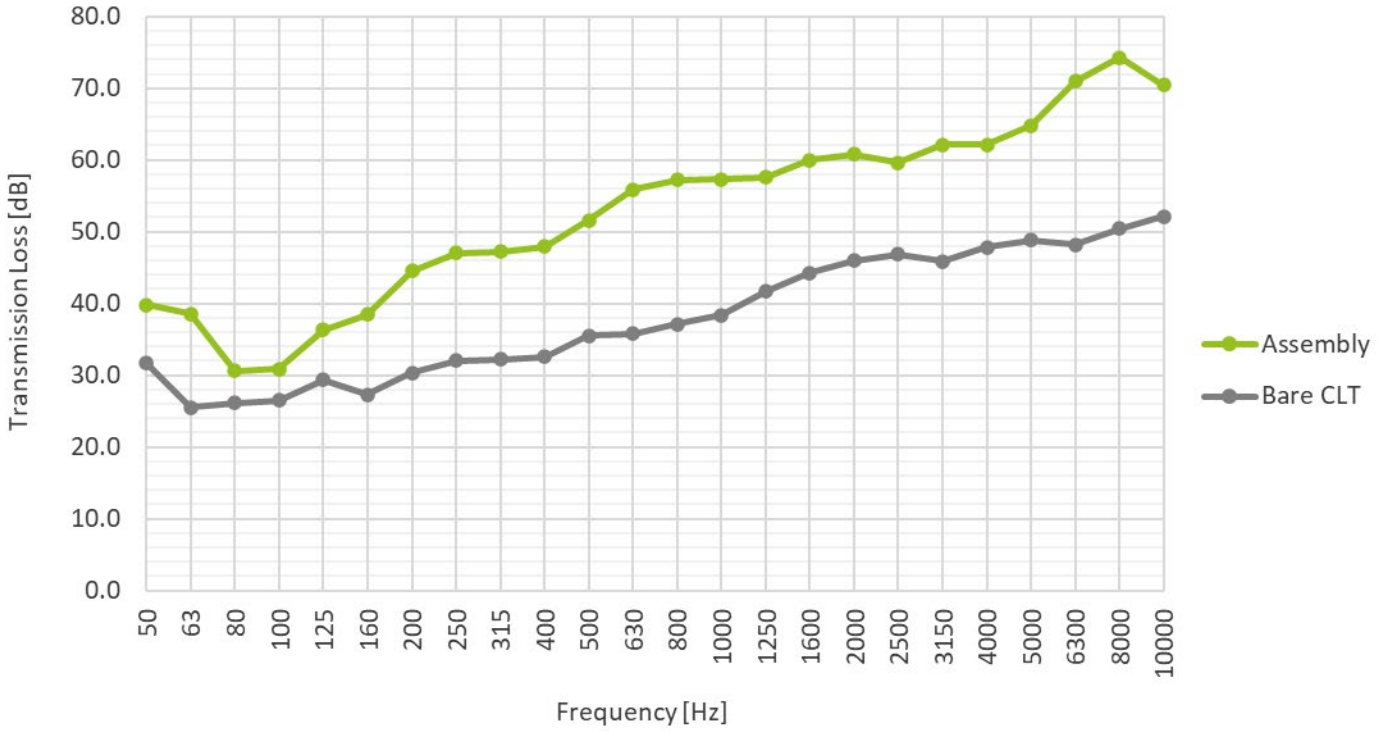
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

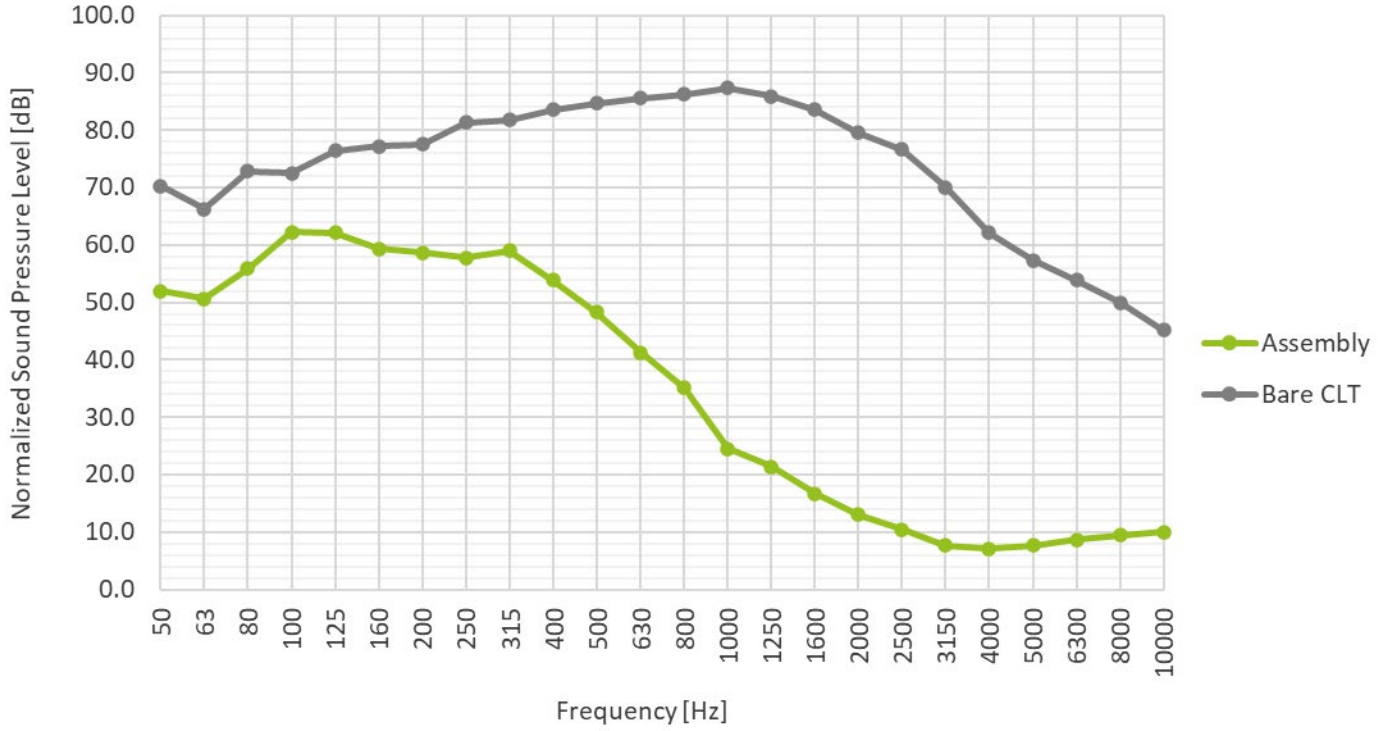
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.03			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 25**, 3" Concrete, **REGUPOL sonus core 5**, 5.5 mm Click-Lock LVT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	39.8	-	52.0	-
63	38.6	-	50.6	-
80	30.6	-	55.9	-
100	30.9	-	62.2	7
125	36.3	3	62.1	7
160	38.5	3	59.3	4
200	44.5	0	58.7	4
250	47.0	1	57.8	3
315	47.2	4	59.0	4
400	47.9	6	53.9	0
500	51.6	3	48.3	0
630	55.9	0	41.3	0
800	57.2	0	35.1	0
1000	57.3	1	24.5	0
1250	57.6	1	21.4	0
1600	60.0	0	16.7	0
2000	60.8	0	13.0	0
2500	59.6	0	10.4	0
3150	62.1	0	7.6	0
4000	62.1	0	7.1	-
5000	64.8	-	7.6	-
6300	71.0	-	8.6	-
8000	74.3	-	9.4	-
10000	70.4	-	10.0	-
Ratings	**STC 55**	**22**	**IIC 57**	**29**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.11			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90	ASTM E492	ASTM E3207	ASTM E3222
Assembly	Click-Lock LVT, 7/32" (5.5 mm) REGUPOL sonus core 3, 1/8" (3 mm) Concrete, 3" (76 mm) REGUPOL sonus curve 50, 2" (50 mm) 3-Ply CLT, 4-1/8" (105 mm)			
Predicted Ratings	STC 59	IIC 58	LIIC 56	HIIC 67
Detail				

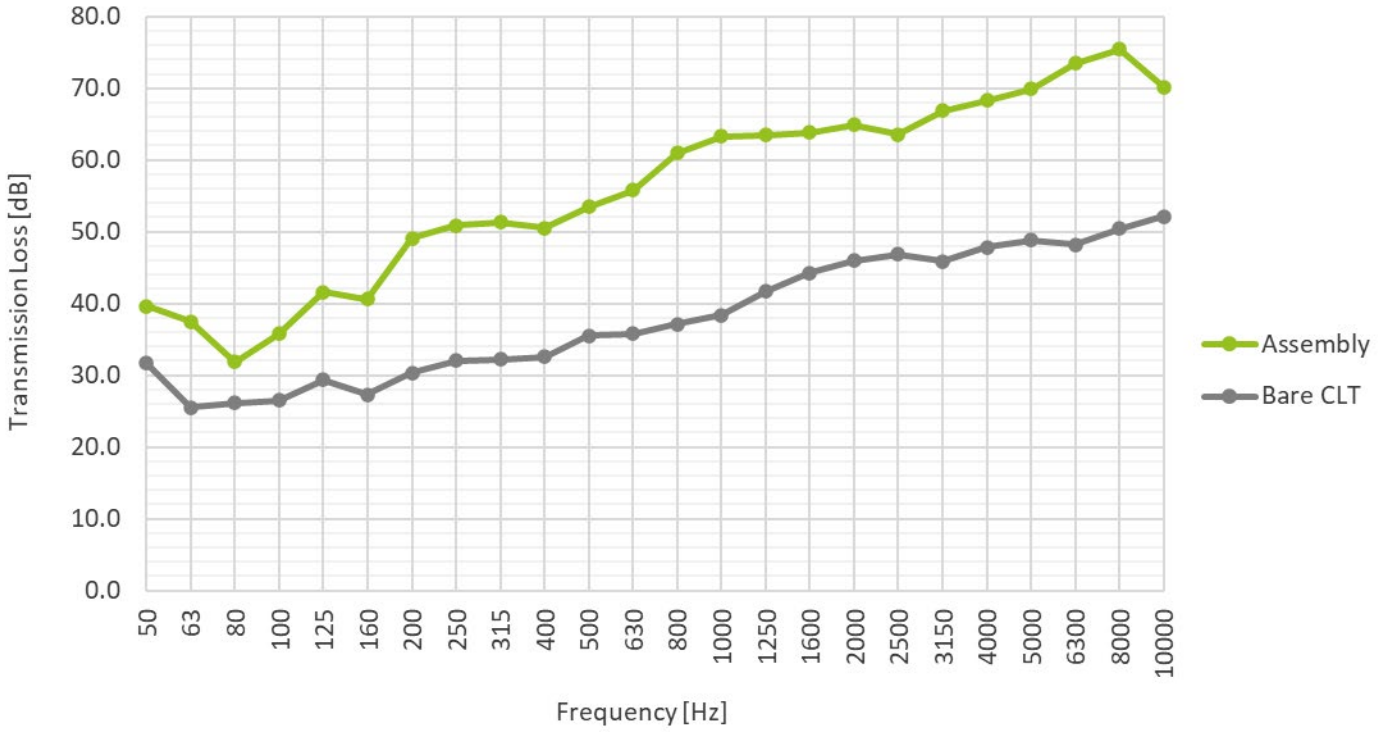
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

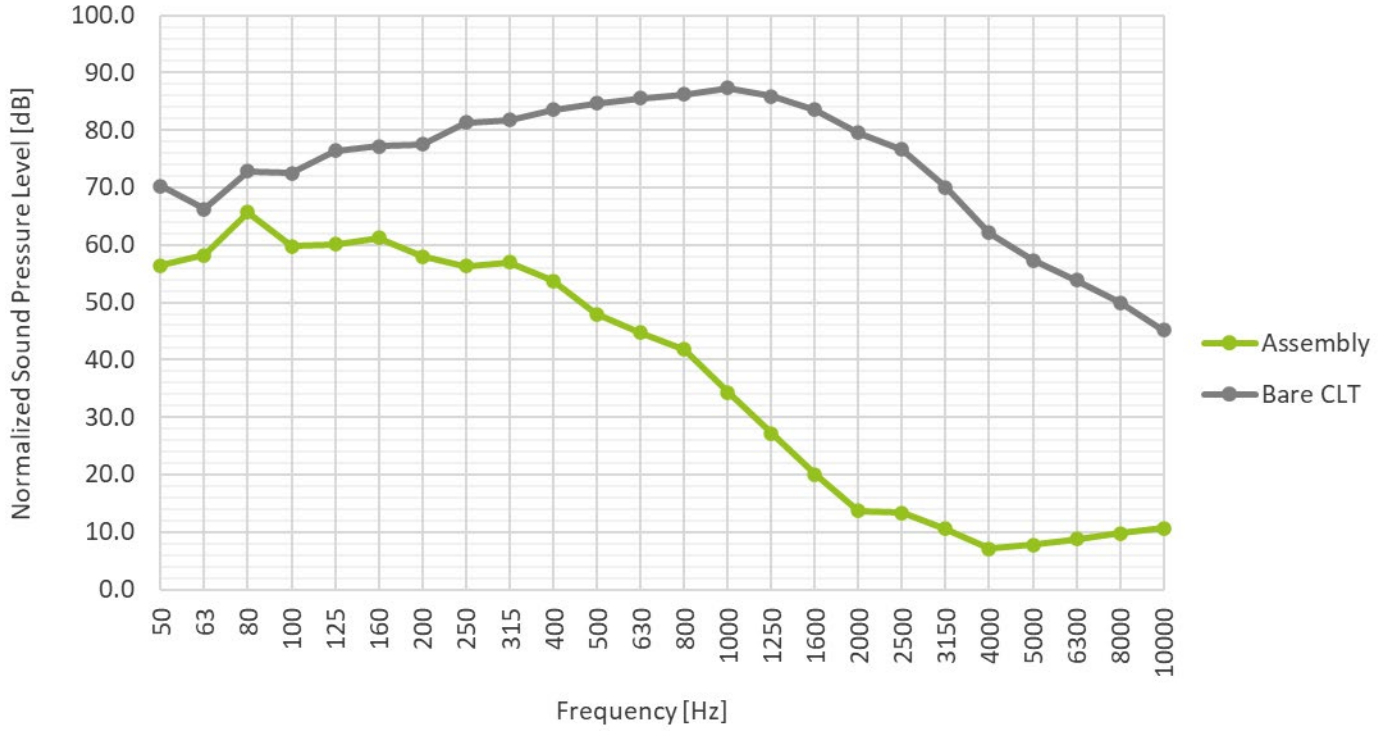
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.11			
Test Date	5/7/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT, **REGUPOL sonus curve 50**, 3" Concrete, **REGUPOL sonus core 3,** 5.5 mm Click-Lock LVT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	39.6	-	56.4	-
63	37.5	-	58.2	-
80	31.9	-	65.7	-
100	35.8	-	59.8	6
125	41.6	1	60.1	6
160	40.6	5	61.2	7
200	49.1	0	58.0	4
250	50.9	1	56.3	2
315	51.3	4	57.0	3
400	50.5	7	53.7	1
500	53.5	5	48.0	0
630	55.8	4	44.7	0
800	61.0	0	41.8	0
1000	63.3	0	34.3	0
1250	63.5	0	27.2	0
1600	63.8	0	20.0	0
2000	64.9	0	13.7	0
2500	63.6	0	13.3	0
3150	66.9	0	10.6	0
4000	68.3	0	7.1	-
5000	69.9	-	7.8	-
6300	73.5	-	8.8	-
8000	75.4	-	9.8	-
10000	70.2	-	10.7	-
Ratings	**STC 59**	**27**	**IIC 58**	**29**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	S5237.00			
Test Date	5/4/2025			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3207, ASTM E3222			
Assembly	3-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.7	-	70.3	-
63	25.5	-	66.3	-
80	26.1	-	72.8	-
100	26.5	-	72.5	0
125	29.4	0	76.4	0
160	27.3	0	77.2	0
200	30.3	0	77.5	0
250	32.0	0	81.3	0
315	32.2	3	81.8	0
400	32.6	5	83.6	0
500	35.5	4	84.7	0
630	35.8	4	85.6	0
800	37.1	4	86.2	1
1000	38.4	4	87.4	3
1250	41.7	1	85.9	5
1600	44.3	0	83.5	5
2000	46.0	0	79.5	5
2500	46.9	0	76.6	5
3150	45.9	0	70.0	1
4000	47.8	0	62.1	-
5000	48.8	-	57.3	-
6300	48.2	-	53.9	-
8000	50.4	-	49.9	-
10000	52.1	-	45.1	-
Ratings	**STC 39**	**25**	**IIC 23**	**25**

LVT FLOOR SURFACE

5 ply 140mm CLT PRODUCT COMPARISON

3” Concrete slab over Sonus curve w/click LVT (vinyl)

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. Made in the USA from recycled cars & truck tires are green circle certified for recycled content and qualify for up to 8 LEED points.

Detail	Assembly	Acoustic Rating	
	Concrete slab 3” **sonus curve 10, (10 mm)** CLT – 5 ply 140mm **sonus core 3** with click LVT	**IIC 55** **HIIC 63** **LIIC 59**	STC 50
	Concrete slab 3” **sonus curve 17, (17 mm)** CLT – 5 ply 140mm **sonus core 3** with click LVT	**IIC 56** **HIIC 64** **LIIC 61**	STC 53
	Concrete slab 3” **sonus curve 25, (25 mm)** CLT – 5 ply 140mm **sonus core 3** with click LVT	**IIC 58** **HIIC 68** **LIIC 65**	STC 54
	Concrete slab 3” **sonus curve 50, (50 mm)** CLT – 5 ply 140mm **sonus core 3** with click LVT	**IIC 63** **HIIC 76** **LIIC 67**	STC 57

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.11			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Rigid Core Click Lock LVT, 5.5 mm sonus core 3, 3 mm Concrete Topping, 3” sonus curve 10, 10 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 50	IIC 55	HIIC 63	LIIC 59
Detail				

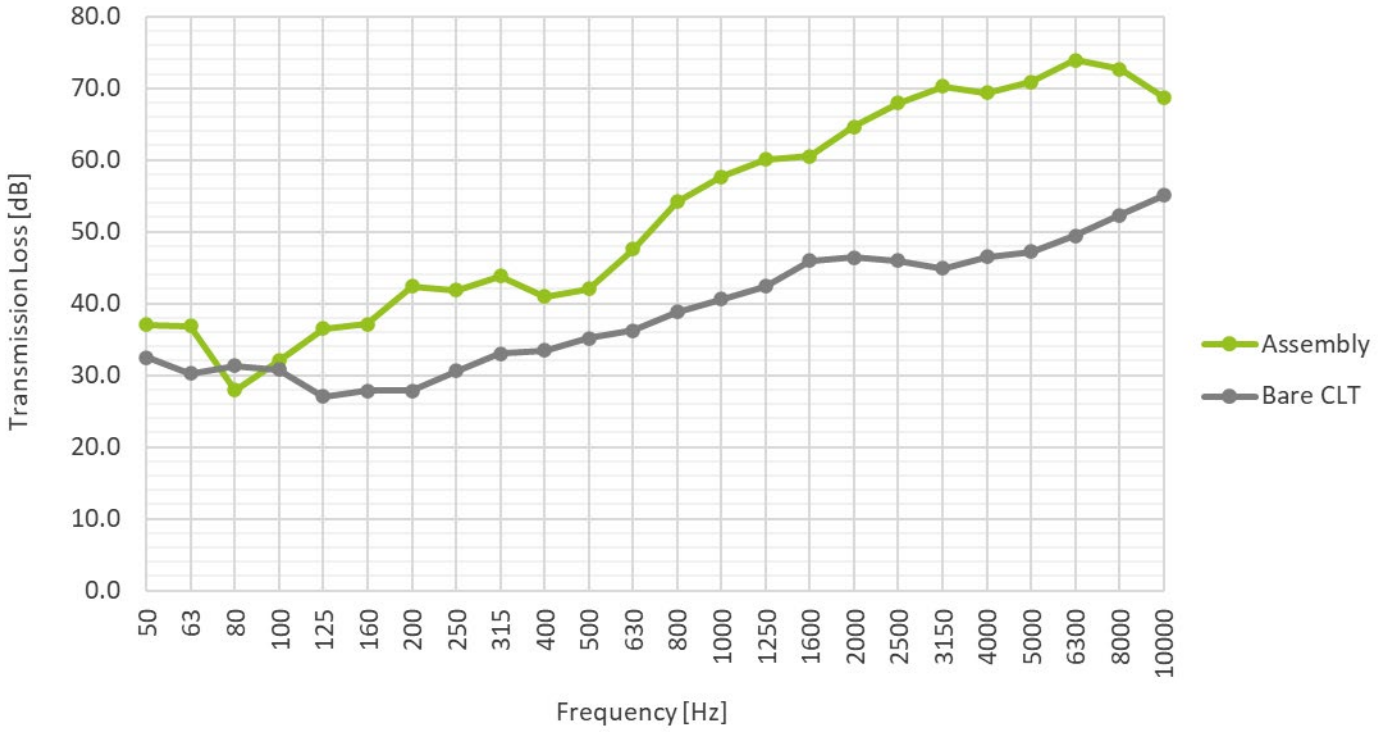
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

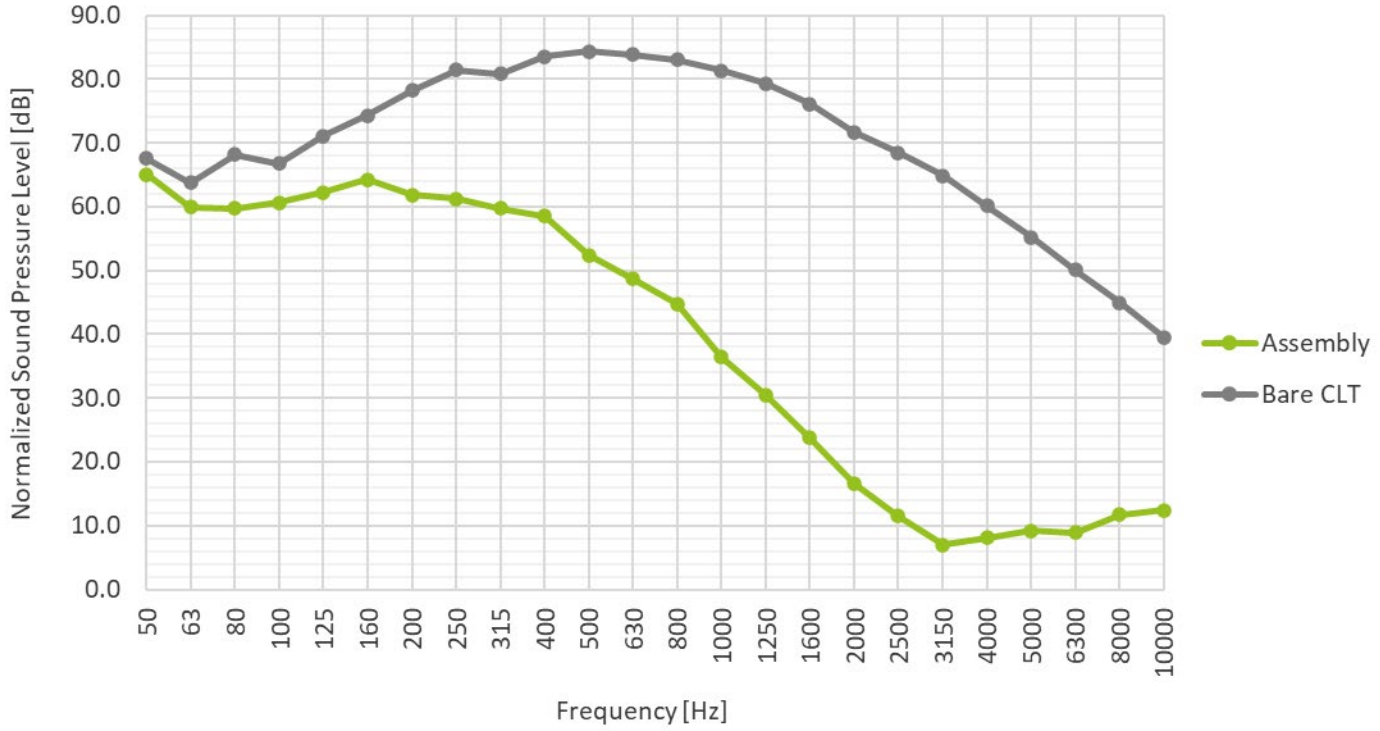
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.11			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	5.5 mm Rigid Core Click Lock LVT, **sonus core 3**, 3" Concrete Topping, **sonus curve 10**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	37.0	-	65.1	-
63	36.9	-	59.9	-
80	27.9	-	59.7	-
100	32.0	-	60.6	4
125	36.5	0	62.2	5
160	37.1	0	64.2	7
200	42.4	0	61.8	5
250	41.9	1	61.2	4
315	43.8	2	59.7	3
400	41.0	8	58.5	3
500	42.0	8	52.4	0
630	47.6	3	48.7	0
800	54.2	0	44.8	0
1000	57.7	0	36.4	0
1250	60.1	0	30.5	0
1600	60.5	0	23.8	0
2000	64.6	0	16.6	0
2500	67.9	0	11.5	0
3150	70.3	0	7.0	0
4000	69.4	0	8.1	-
5000	70.9	-	9.2	-
6300	73.9	-	8.9	-
8000	72.7	-	11.7	-
10000	68.7	-	12.4	-
Ratings	**STC 50**	**22**	**IIC 55**	**31**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.02			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Rigid Core Click Lock LVT, 5.5 mm sonus core 3, 3 mm Concrete Topping, 3” sonus curve 17, 17 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 53	IIC 56	HIIC 64	LIIC 61
Detail				

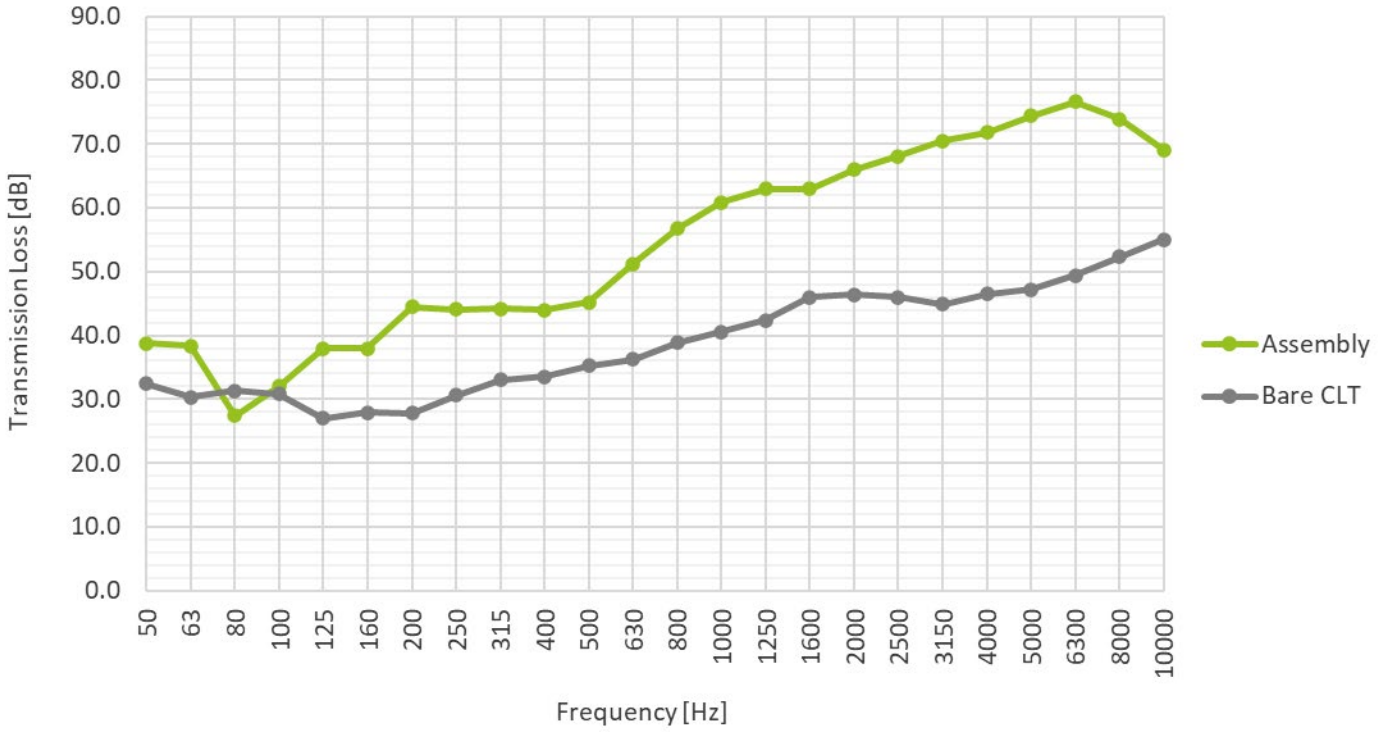
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

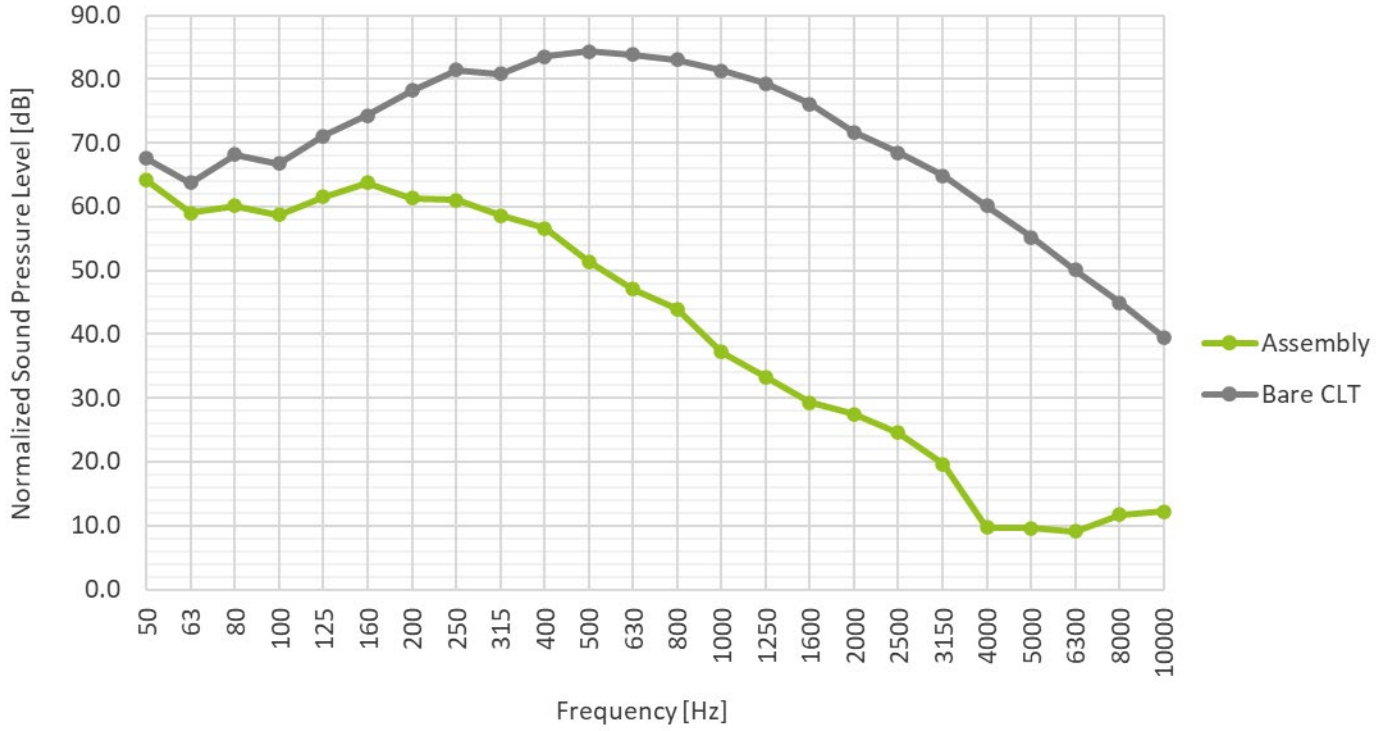
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.02			
Test Date	5/28/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	5.5 mm Rigid Core Click Lock LVT, **sonus core 3**, 3" Concrete Topping, **sonus curve 17**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	38.8	-	64.1	-
63	38.4	-	59.0	-
80	27.4	-	60.1	-
100	32.0	-	58.7	3
125	38.0	0	61.5	5
160	38.0	2	63.7	8
200	44.5	0	61.3	5
250	44.1	2	61.0	5
315	44.2	5	58.6	3
400	44.0	8	56.6	2
500	45.2	8	51.4	0
630	51.2	3	47.1	0
800	56.7	0	44.0	0
1000	60.9	0	37.2	0
1250	63.0	0	33.3	0
1600	63.0	0	29.3	0
2000	66.0	0	27.5	0
2500	68.1	0	24.6	0
3150	70.5	0	19.6	0
4000	71.8	0	9.7	-
5000	74.4	-	9.6	-
6300	76.6	-	9.1	-
8000	73.9	-	11.7	-
10000	69.1	-	12.2	-
Ratings	**STC 53**	**28**	**IIC 56**	**31**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

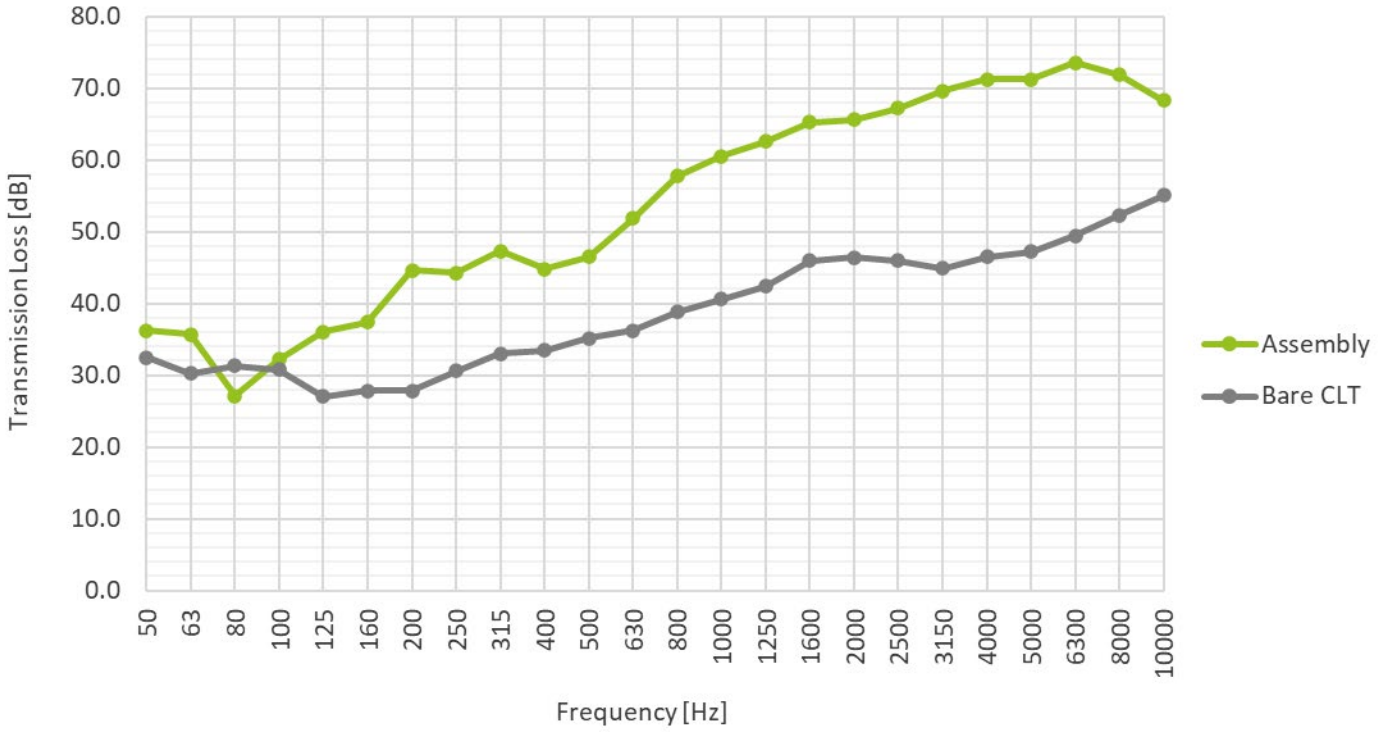
Test Number	R4267.16			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Rigid Core Click Lock LVT, 5.5 mm sonus core 3, 3 mm Concrete Topping, 3” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 54	IIC 58	HIIC 68	LIIC 65
Detail				

Please contact us to request a copy of the official test report from Intertek.

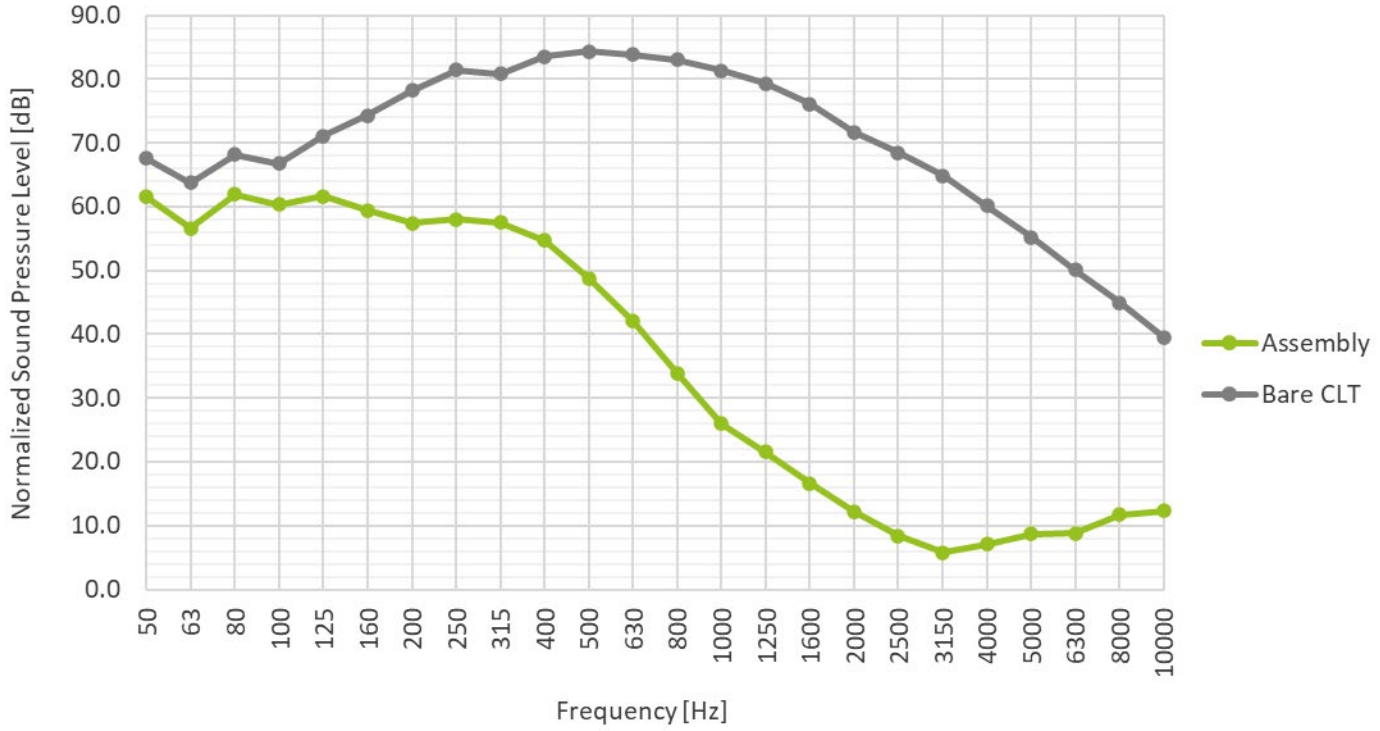
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.16			
Test Date	5/29/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	5.5 mm Rigid Core Click Lock LVT, **sonus core 3**, 3" Concrete Topping, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	36.2	-	61.5	-
63	35.7	-	56.6	-
80	27.1	-	61.9	-
100	32.2	-	60.3	6
125	36.1	2	61.6	8
160	37.4	4	59.4	5
200	44.6	0	57.4	3
250	44.3	3	58.0	4
315	47.3	3	57.5	4
400	44.8	8	54.7	2
500	46.5	8	48.8	0
630	51.9	3	42.0	0
800	57.8	0	33.9	0
1000	60.5	0	26.0	0
1250	62.6	0	21.6	0
1600	65.3	0	16.6	0
2000	65.6	0	12.2	0
2500	67.2	0	8.4	0
3150	69.6	0	5.8	0
4000	71.2	0	7.1	-
5000	71.2	-	8.7	-
6300	73.6	-	8.8	-
8000	71.9	-	11.7	-
10000	68.3	-	12.3	-
Ratings	**STC 54**	**31**	**IIC 58**	**32**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.21			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Rigid Core Click Lock LVT, 5.5 mm sonus core 3, 3 mm Concrete Topping, 3” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 57	IIC 63	HIIC 76	LIIC 67
Detail				

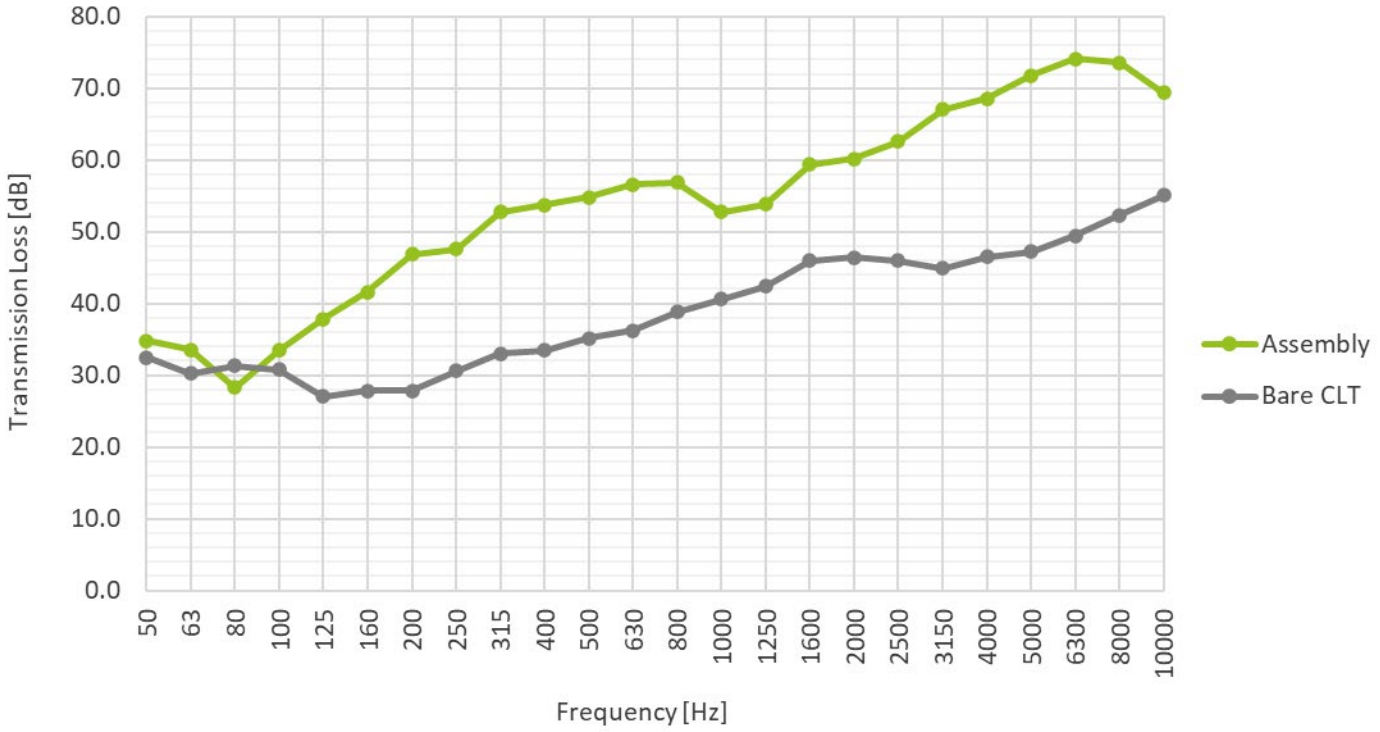
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

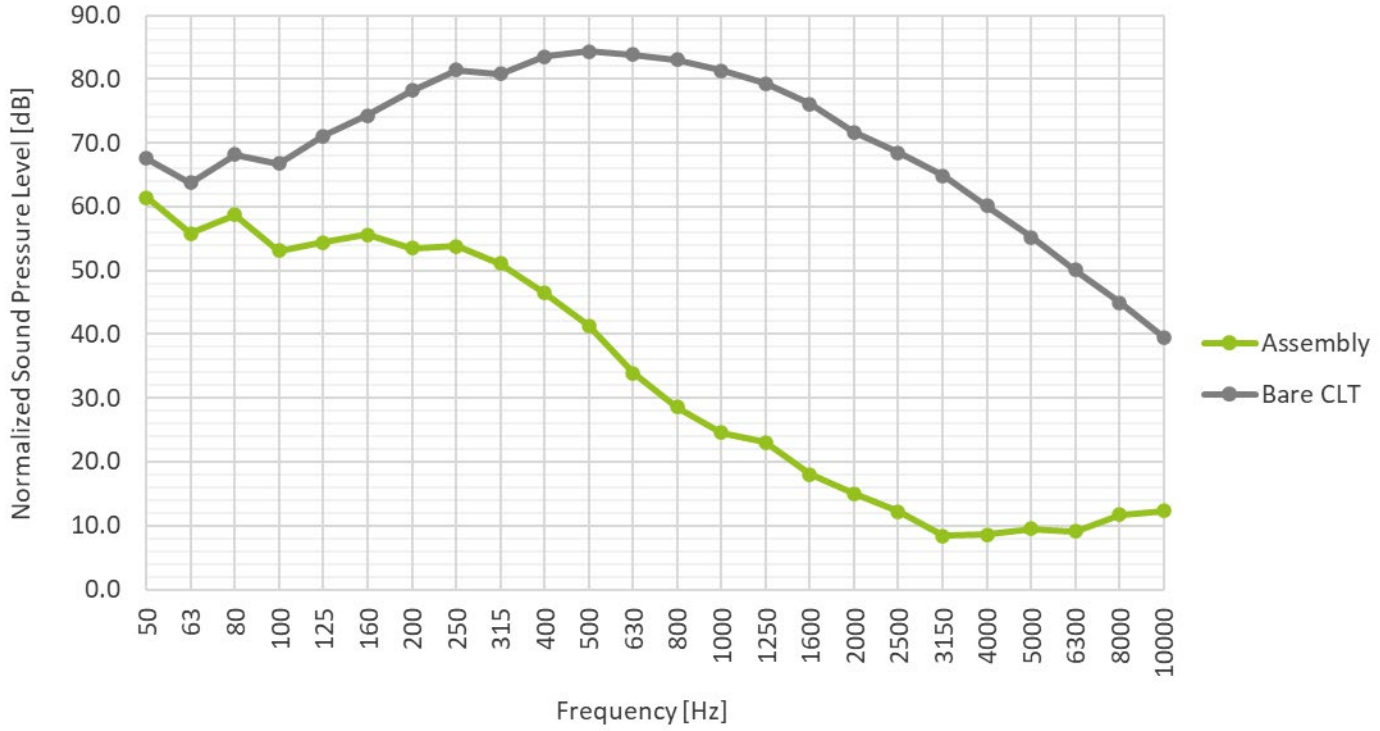
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.21			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	5.5 mm Rigid Core Click Lock LVT, **sonus core 3**, 3" Concrete Topping, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	34.8	-	61.4	-
63	33.6	-	55.8	-
80	28.3	-	58.7	-
100	33.5	-	53.1	4
125	37.8	3	54.4	5
160	41.6	2	55.6	7
200	46.9	0	53.5	4
250	47.6	2	53.8	5
315	52.8	0	51.1	2
400	53.7	2	46.5	0
500	54.8	2	41.3	0
630	56.6	1	33.9	0
800	56.9	2	28.6	0
1000	52.8	7	24.6	0
1250	53.8	7	23.1	0
1600	59.4	2	18.0	0
2000	60.2	1	15.0	0
2500	62.6	0	12.2	0
3150	67.0	0	8.4	0
4000	68.6	0	8.6	-
5000	71.8	-	9.5	-
6300	74.1	-	9.1	-
8000	73.6	-	11.7	-
10000	69.4	-	12.3	-
Ratings	**STC 57**	**31**	**IIC 63**	**27**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

LVT FLOOR SURFACE

5 ply 140mm CLT PRODUCT COMPARISON

EXACOR Dry Screed over Sonus curve with click LVT (vinyl)

REGUPOL sonus curve is a high-performance acoustic dimpled rubber floor underlayment designed to reduce impact noise from footfall noise transmission and impact sound in Mass Timber Frame Construction. EXACOR is a ½" dry screed board that weighs 2.7lbs PSF and is glued and screwed to each other. Tested in 2 or 3 layers 1" or 1.5" thickness.

Detail	Assembly	Acoustic Rating	
	**EXACOR** dry screed **1"** **sonus curve 25, (25 mm)** CLT – 5 ply 140mm **sonus multi 3** with 2mm LVT	**IIC 50** **HIIC 64** **LIIC 54**	STC 52
	**EXACOR** dry screed **1.5"** **sonus curve 25, (25 mm)** CLT – 5 ply 140mm **sonus multi 3** with 2mm LVT	**IIC 53** **HIIC 66** **LIIC 51**	STC 53
	**EXACOR** dry screed **1.5"** **sonus curve 50, (50 mm)** CLT – 5 ply 140mm **sonus core 3** with LVT	**IIC 56** **HIIC 78** **LIIC 52**	STC 58
	**EXACOR** dry screed **1.5"** **sonus curve 50, (50 mm)** CLT – 5 ply 140mm **sonus xl 5** with LVT	**IIC 57** **HIIC 81** **LIIC 52**	STC 58

TEST REPORT

ACOUSTICAL PERFORMANCE

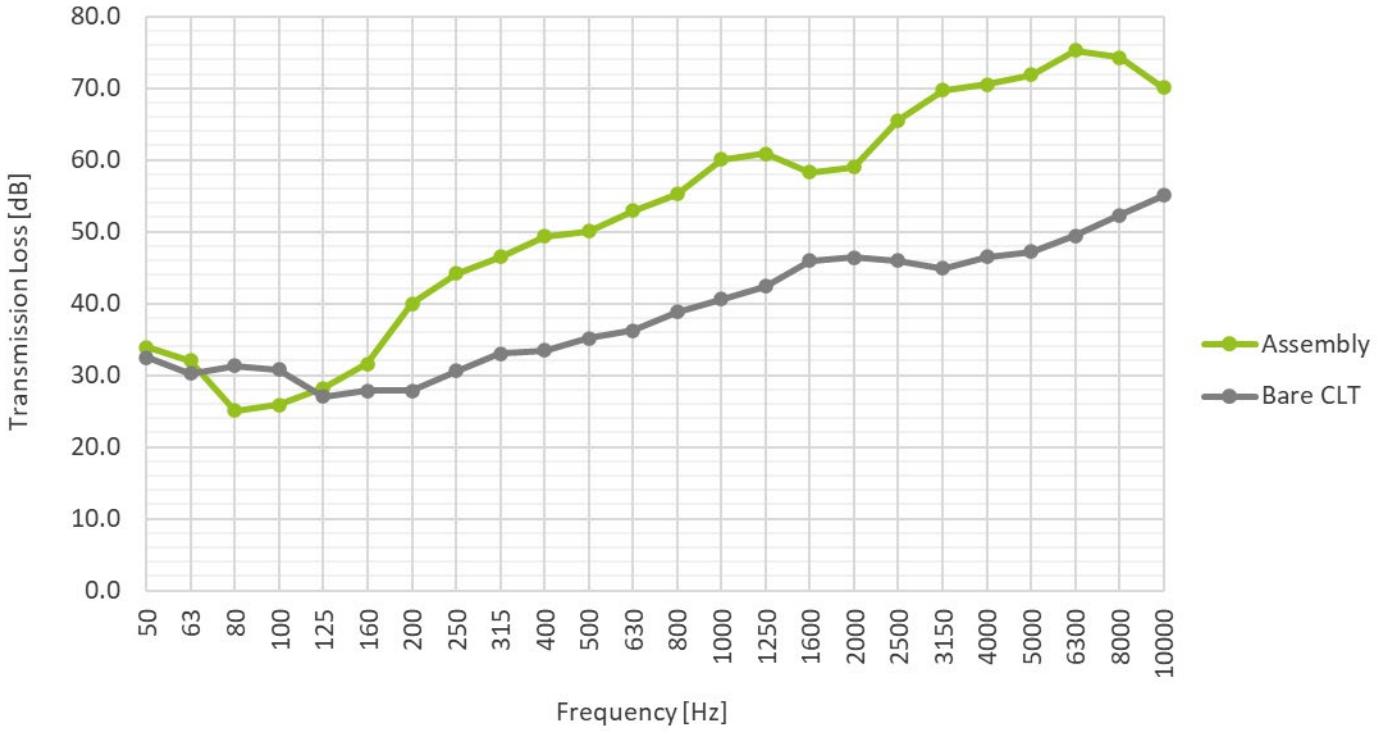
Test Number	R4267.32			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	LVT, 2 mm sonus multi 3, 3 mm EXACOR, 1” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 52	IIC 50	HIIC 64	LIIC 54
Detail				

Please contact us to request a copy of the official test report from Intertek.

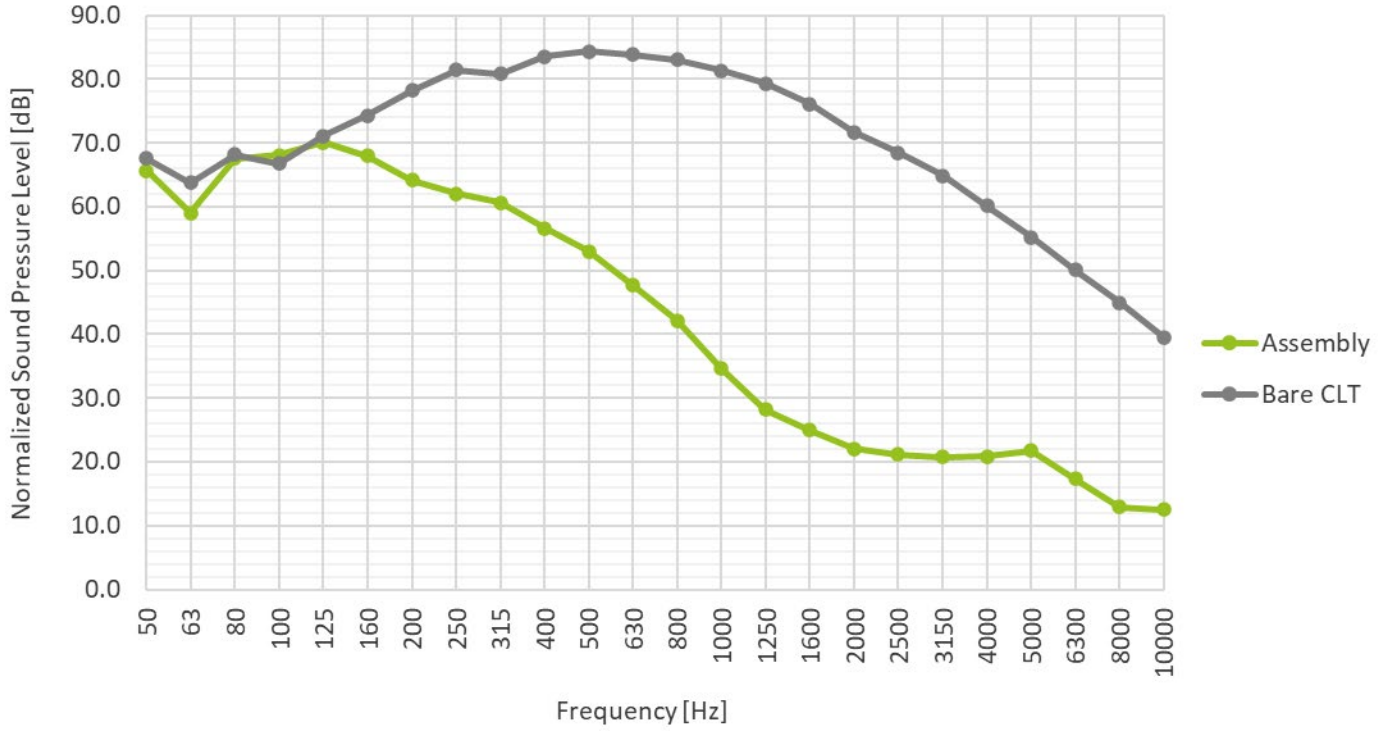
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.32			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	2 mm LVT, **sonus multi 3**, 1" EXACOR, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	33.9	-	65.7	-
63	32.0	-	59.0	-
80	25.1	-	67.6	-
100	25.9	-	68.1	6
125	28.2	8	70.1	8
160	31.6	7	68.0	6
200	40.0	2	64.1	2
250	44.2	1	62.0	0
315	46.5	2	60.6	0
400	49.4	2	56.6	0
500	50.1	2	53.0	0
630	52.9	0	47.7	0
800	55.3	0	42.1	0
1000	60.1	0	34.6	0
1250	60.9	0	28.2	0
1600	58.3	0	25.0	0
2000	59.0	0	22.1	0
2500	65.5	0	21.1	0
3150	69.7	0	20.7	0
4000	70.5	0	20.8	-
5000	71.9	-	21.8	-
6300	75.3	-	17.3	-
8000	74.3	-	12.9	-
10000	70.1	-	12.5	-
Ratings	**STC 52**	**24**	**IIC 50**	**22**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

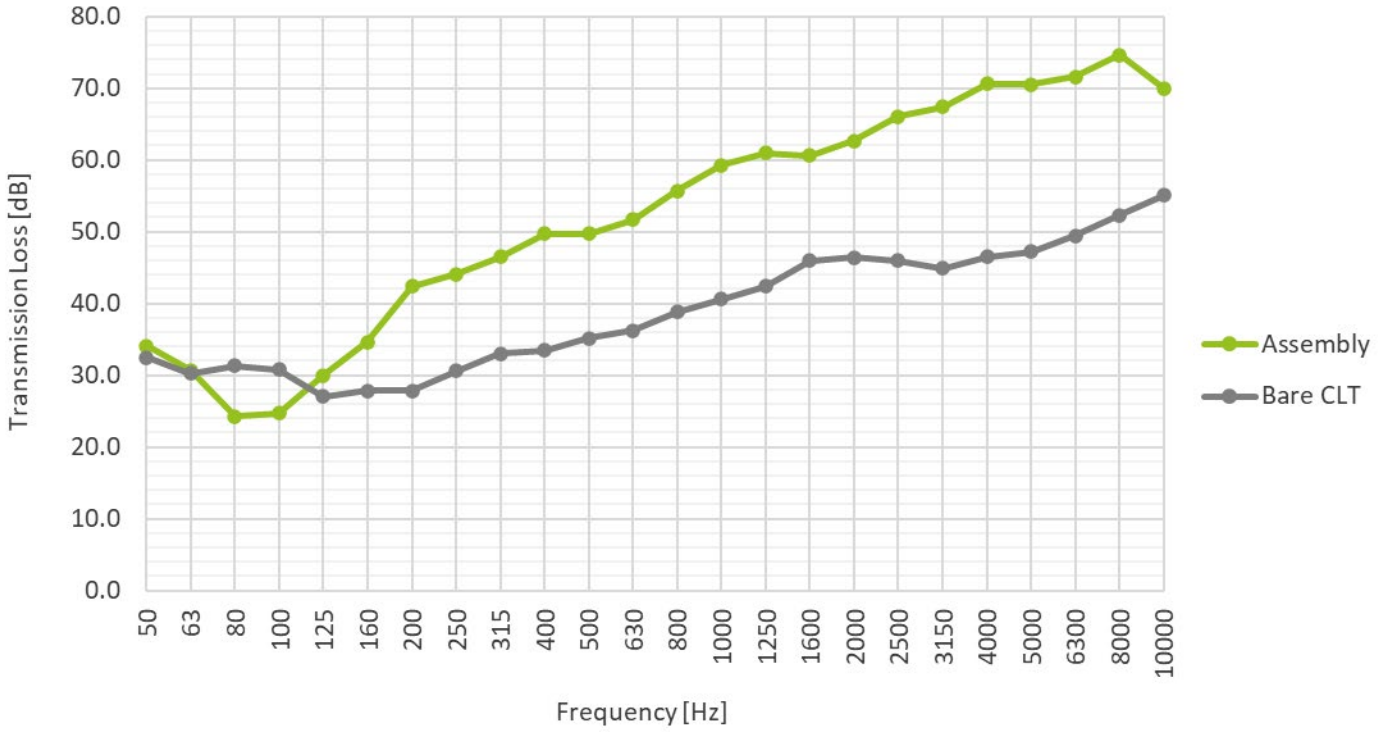
Test Number	R4267.28			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	LVT, 2 mm sonus multi 3, 3 mm EXACOR, 1-1/2” sonus curve 25, 25 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 53	IIC 53	HIIC 66	LIIC 51
Detail				

Please contact us to request a copy of the official test report from Intertek.

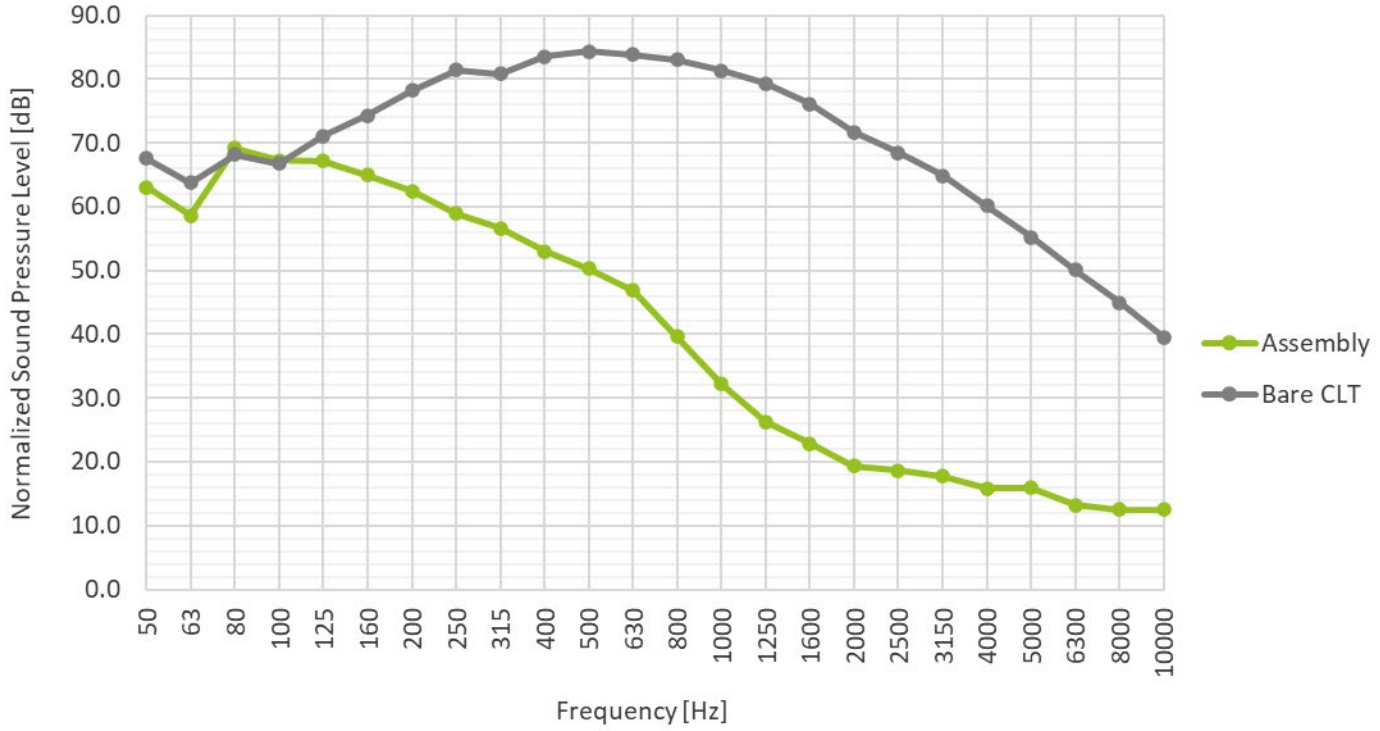
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.28			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	2 mm LVT, **sonus multi 3**, 1-1/2" EXACOR, **sonus curve 25**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	34.1	-	63.0	-
63	30.7	-	58.6	-
80	24.3	-	69.2	-
100	24.7	-	67.3	8
125	30.0	7	67.2	8
160	34.6	5	65.0	6
200	42.4	1	62.4	3
250	44.1	2	58.9	0
315	46.5	3	56.6	0
400	49.7	2	53.0	0
500	49.7	3	50.3	0
630	51.7	2	46.9	0
800	55.7	0	39.6	0
1000	59.3	0	32.2	0
1250	61.0	0	26.3	0
1600	60.6	0	22.9	0
2000	62.7	0	19.3	0
2500	66.1	0	18.6	0
3150	67.4	0	17.7	0
4000	70.6	0	15.8	-
5000	70.5	-	15.9	-
6300	71.6	-	13.2	-
8000	74.6	-	12.5	-
10000	70.0	-	12.5	-
Ratings	**STC 53**	**25**	**IIC 53**	**25**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4267.36			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Rigid Core Click Lock LVT, 5.5 mm sonus core 3, 3 mm EXACOR, 1-1/2” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 58	IIC 56	HIIC 78	LIIC 52
Detail				

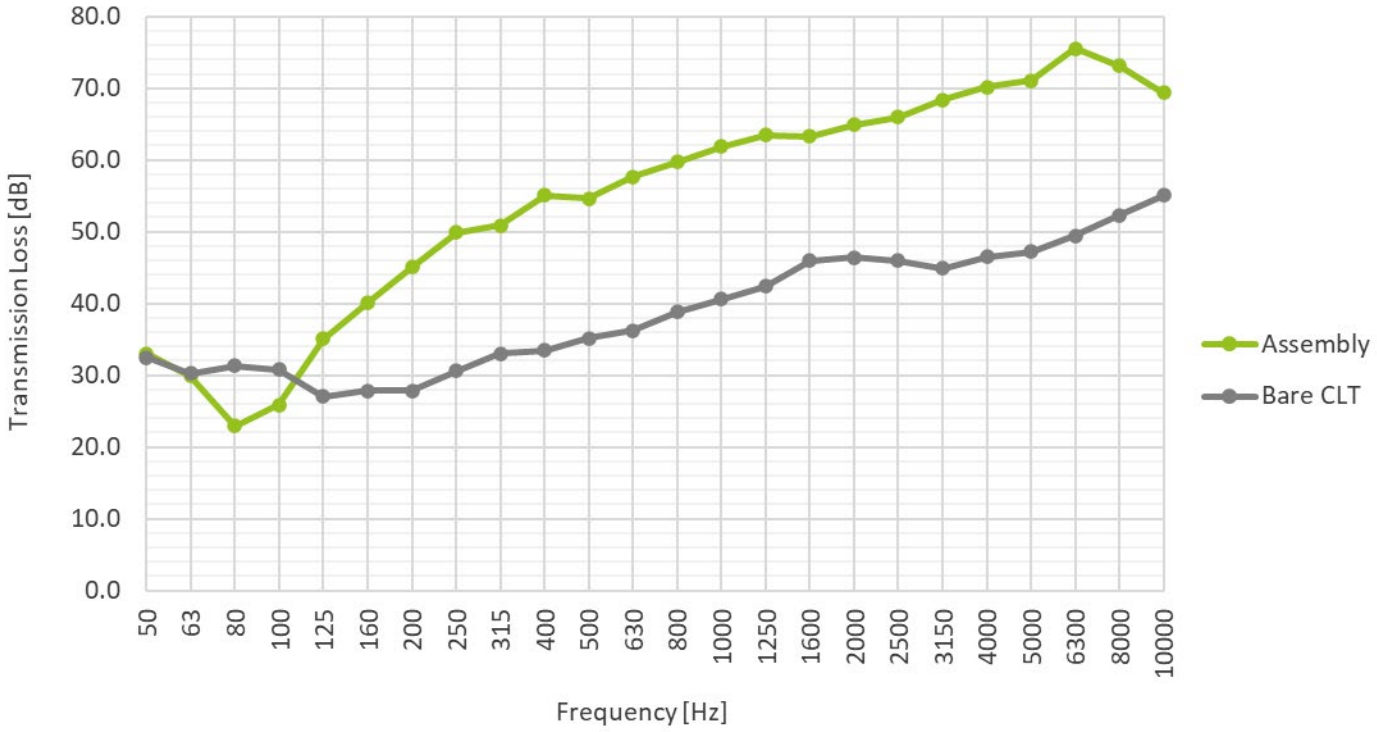
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

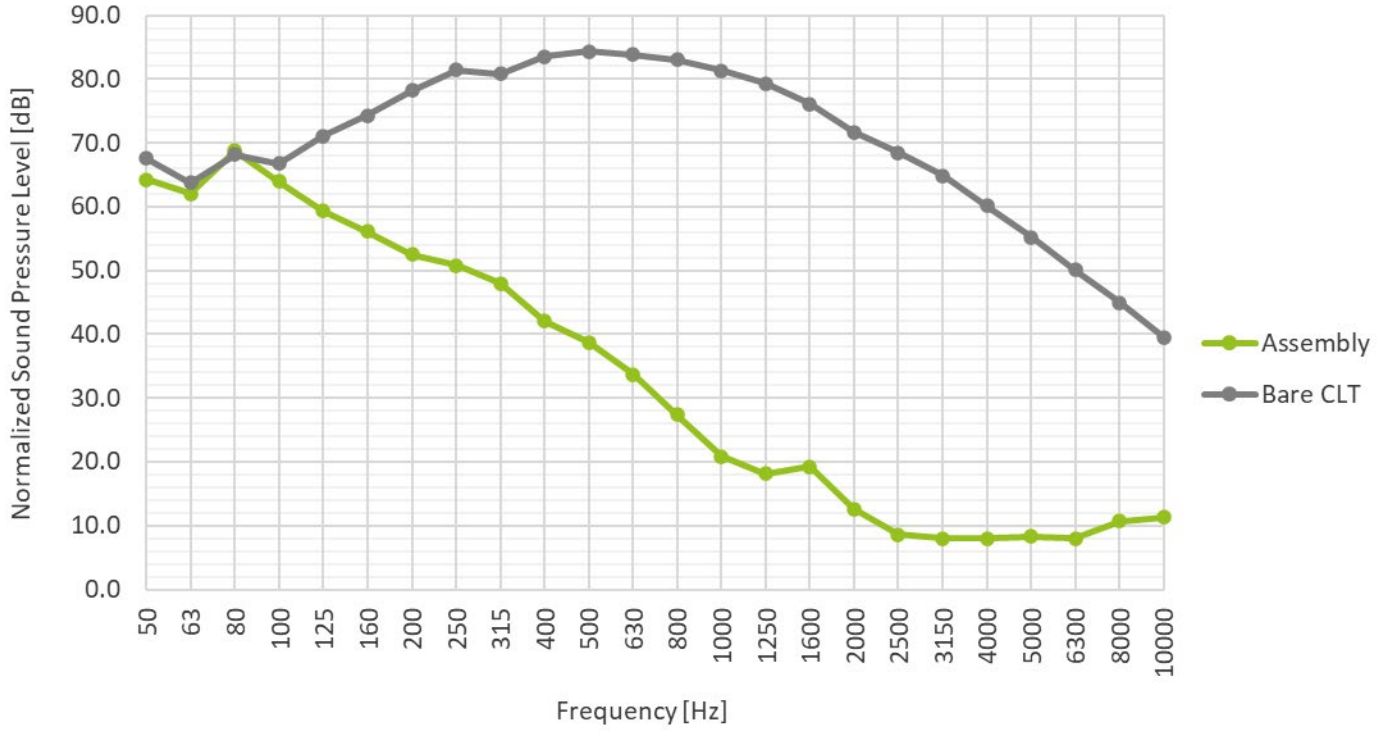
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.36			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	5.5 mm Rigid Core Click Lock LVT, **sonus core 3**, 1-1/2" EXACOR, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	33.0	-	64.2	-
63	29.9	-	62.0	-
80	22.9	-	68.8	-
100	25.9	-	63.9	8
125	35.1	7	59.3	3
160	40.1	5	56.1	0
200	45.1	3	52.5	0
250	49.9	1	50.8	0
315	50.9	3	48.0	0
400	55.1	2	42.0	0
500	54.6	3	38.7	0
630	57.7	1	33.7	0
800	59.7	0	27.4	0
1000	61.9	0	20.8	0
1250	63.5	0	18.1	0
1600	63.3	0	19.2	0
2000	64.9	0	12.6	0
2500	66.0	0	8.6	0
3150	68.4	0	8.0	0
4000	70.2	0	8.0	-
5000	71.1	-	8.3	-
6300	75.5	-	8.0	-
8000	73.1	-	10.7	-
10000	69.4	-	11.3	-
Ratings	**STC 58**	**25**	**IIC 56**	**11**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

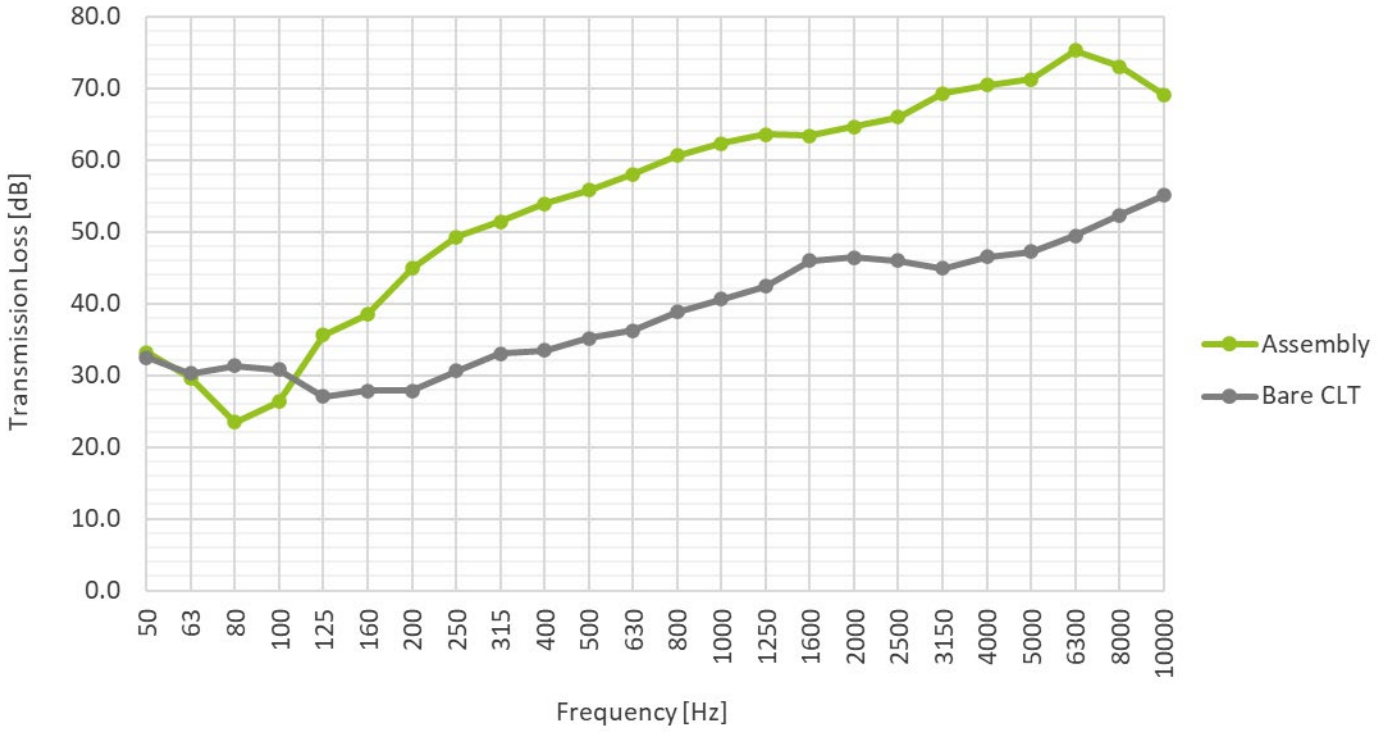
Test Number	R4267.39			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Rigid Core Click Lock LVT, 5.5 mm sonus XL 5, 5 mm EXACOR, 1-1/2” sonus curve 50, 50 mm Nordic 5-Ply CLT, 140 mm			
Ratings	STC 58	IIC 57	HIIC 81	LIIC 52
Detail				

Please contact us to request a copy of the official test report from Intertek.

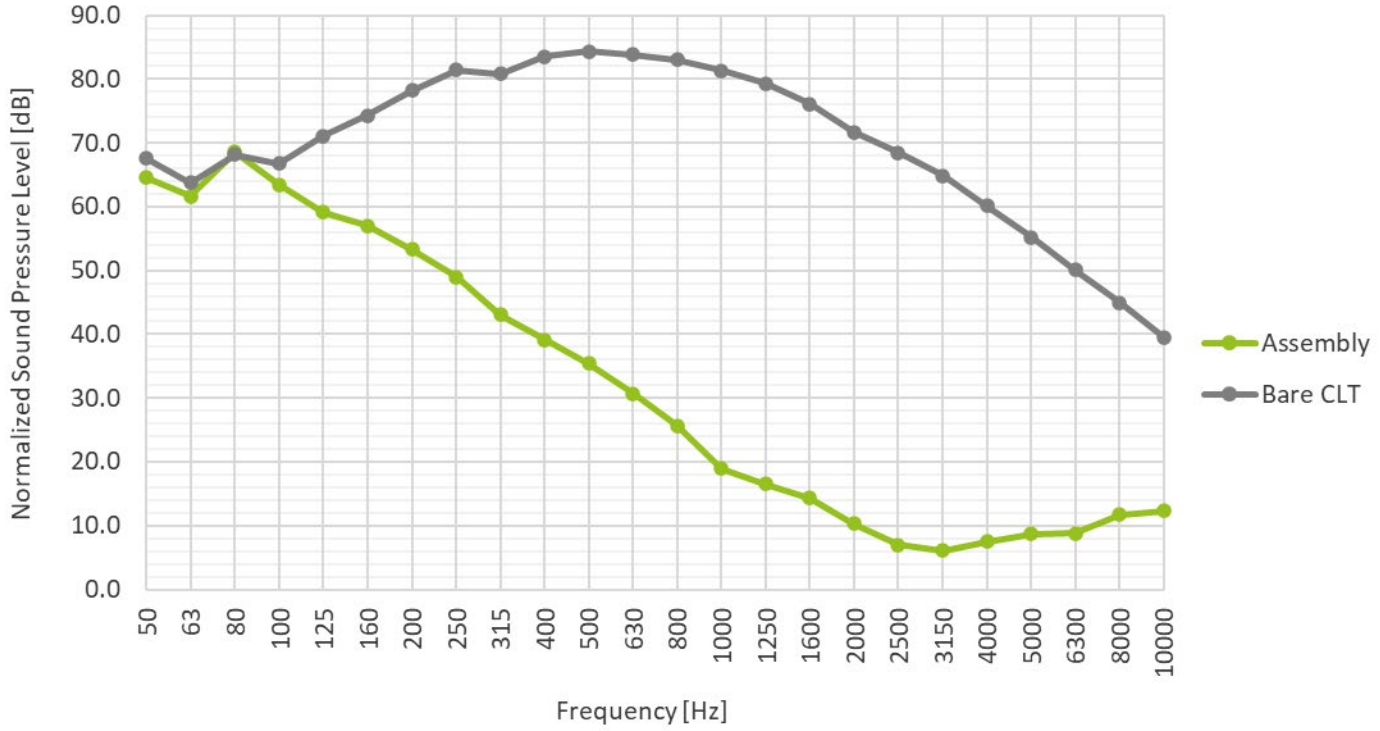
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.39			
Test Date	5/31/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	5.5 mm Rigid Core Click Lock LVT, **sonus XL 5**, 1-1/2" EXACOR, **sonus curve 50**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	33.2	-	64.5	-
63	29.6	-	61.6	-
80	23.5	-	68.6	-
100	26.3	-	63.4	8
125	35.6	6	59.1	4
160	38.5	6	57.0	2
200	44.9	3	53.3	0
250	49.3	2	49.0	0
315	51.4	3	43.0	0
400	53.9	3	39.1	0
500	55.8	2	35.4	0
630	58.0	1	30.7	0
800	60.6	0	25.7	0
1000	62.3	0	18.9	0
1250	63.6	0	16.5	0
1600	63.4	0	14.3	0
2000	64.6	0	10.3	0
2500	66.0	0	7.0	0
3150	69.3	0	6.1	0
4000	70.4	0	7.5	-
5000	71.2	-	8.7	-
6300	75.3	-	8.8	-
8000	73.0	-	11.7	-
10000	69.1	-	12.3	-
Ratings	**STC 58**	**26**	**IIC 57**	**14**

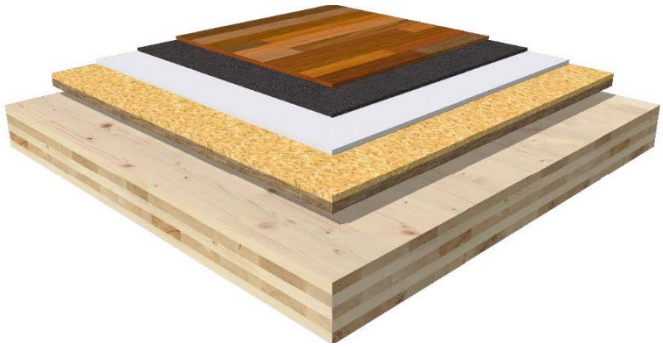
Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

HARDWOOD & LVT FLOOR SURFACE

5 ply 140mm CLT PRODUCT COMPARISON
SoundPanel x4 with ½" Exacor dry screed board

The **REGUPOL soundpanel X4** is a panelized floating floor system designed to absorb airborne sound and dissipate structure-borne vibration. Each 4' x 4' panel is perfectly suitable for use in mass timber construction. A layer of EXACOR® dry screed panel or ¾" plywood can be used to secure the soundpanel X4 system together to each other.



Detail	Assembly	Acoustic Rating	
	**½" EXACOR board** **soundpanel x4** CLT – 5 ply 140mm	**IIC 51** **HIIC 54** **LIIC 52**	STC 55
	**sonus core 3** with hardwood **½" EXACOR board** **soundpanel x4** CLT – 5 ply 140mm	**IIC 56** **HIIC 65** **LIIC 61**	STC 57
	**sonus core 5** with hardwood **½" EXACOR board** **soundpanel x4** CLT – 5 ply 140mm	**IIC 58** **HIIC 67** **LIIC 55**	STC 57
	**sonus core 3** with LVT **½" EXACOR board** **soundpanel x4** CLT – 5 ply 140mm	**IIC 56** **HIIC 68** **LIIC 48**	STC 57

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.40			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	EXACOR, 1/2” soundpanel, 2-19/32” Nordic 5-Ply CLT, 140 mm			
Ratings	STC 55	IIC 51	HIIC 54	LIIC 52
Detail				

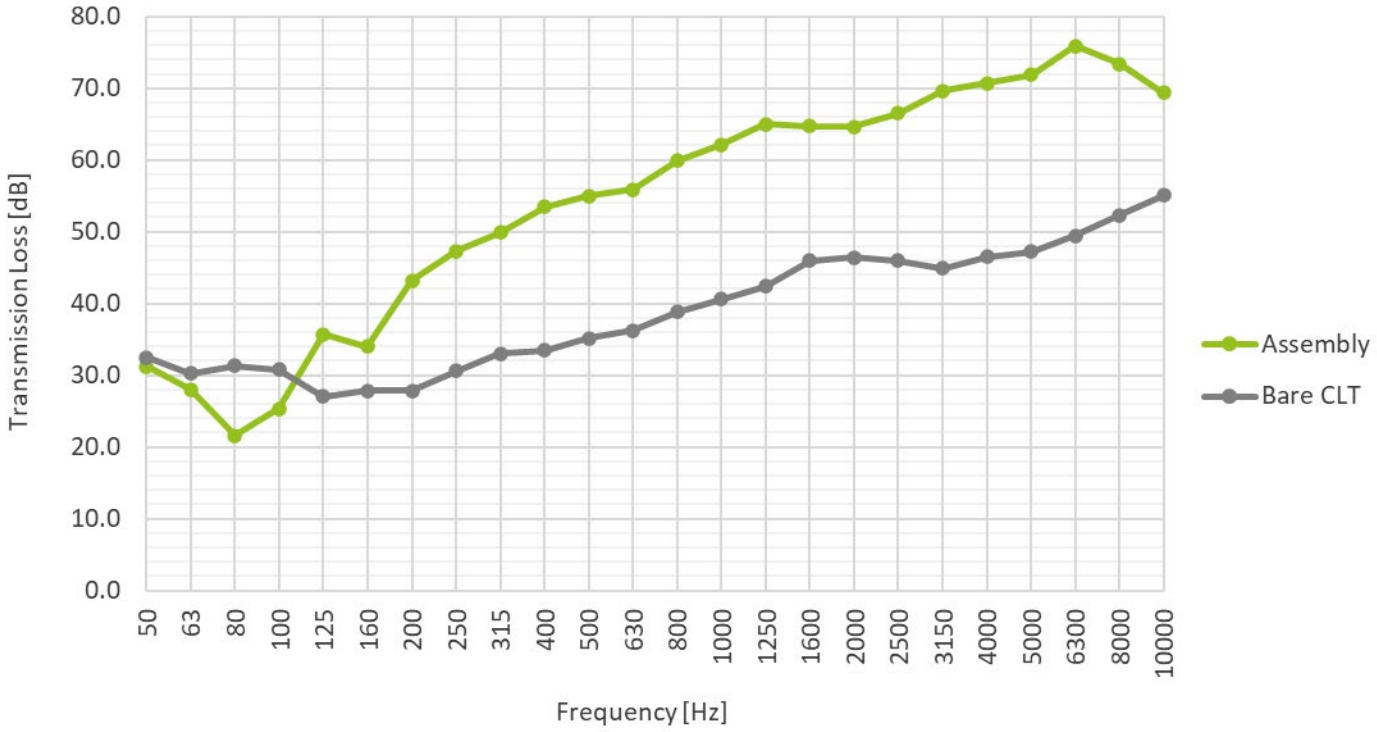
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

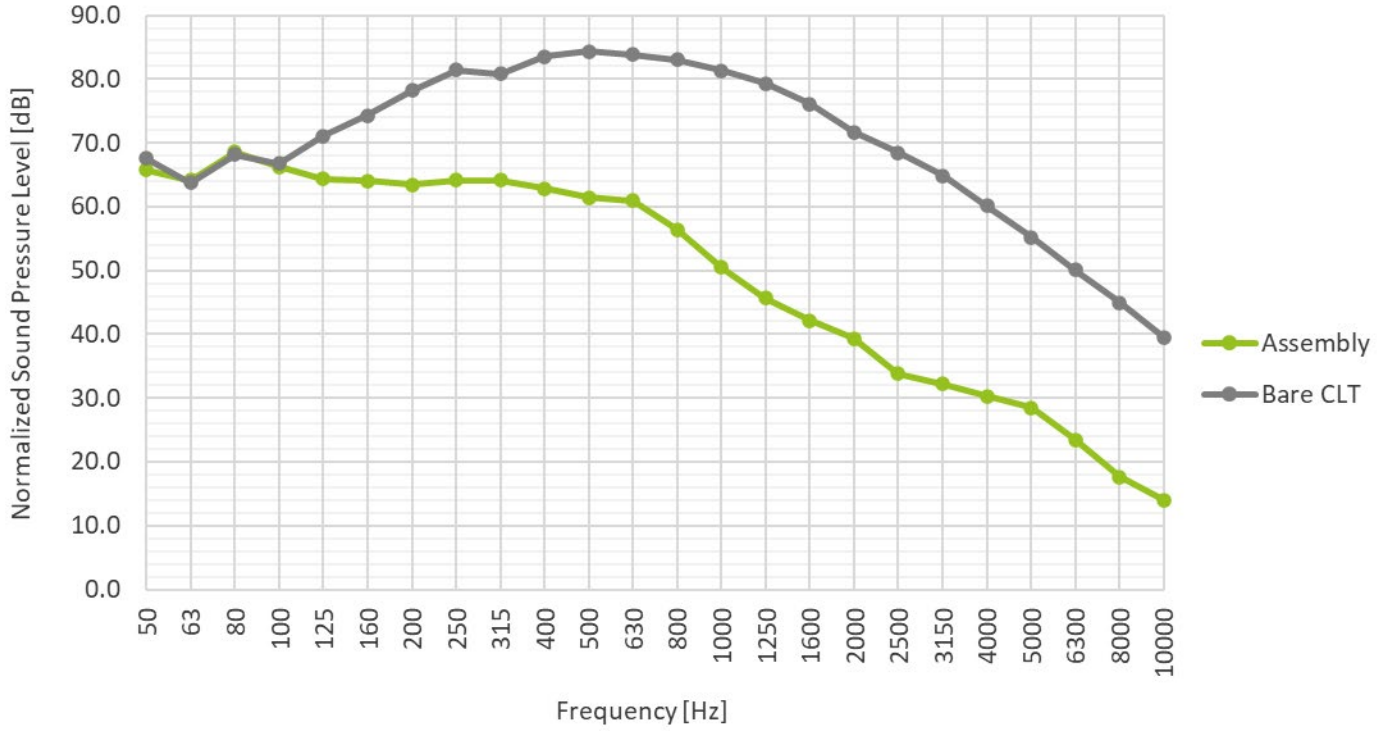
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.40			
Test Date	5/30/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	1/2” EXACOR, **soundpanel**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	31.2	-	65.8	-
63	28.0	-	64.1	-
80	21.6	-	68.6	-
100	25.3	-	66.3	5
125	35.7	3	64.3	3
160	34.0	8	64.0	3
200	43.2	2	63.4	2
250	47.3	1	64.1	3
315	49.9	1	64.1	3
400	53.5	1	62.8	3
500	55.0	0	61.4	2
630	55.9	0	60.9	3
800	59.9	0	56.4	0
1000	62.1	0	50.5	0
1250	65.0	0	45.7	0
1600	64.7	0	42.1	0
2000	64.6	0	39.3	0
2500	66.5	0	33.8	0
3150	69.6	0	32.2	0
4000	70.7	0	30.3	-
5000	71.9	-	28.5	-
6300	75.9	-	23.5	-
8000	73.4	-	17.6	-
10000	69.4	-	14.0	-
Ratings	**STC 55**	**16**	**IIC 51**	**27**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.42			
Test Date	6/1/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 3, 3 mm EXACOR, 1/2” soundpanel, 2-19/32” Nordic 5-Ply CLT, 140 mm			
Ratings	STC 57	IIC 56	HIIC 65	LIIC 51
Detail				

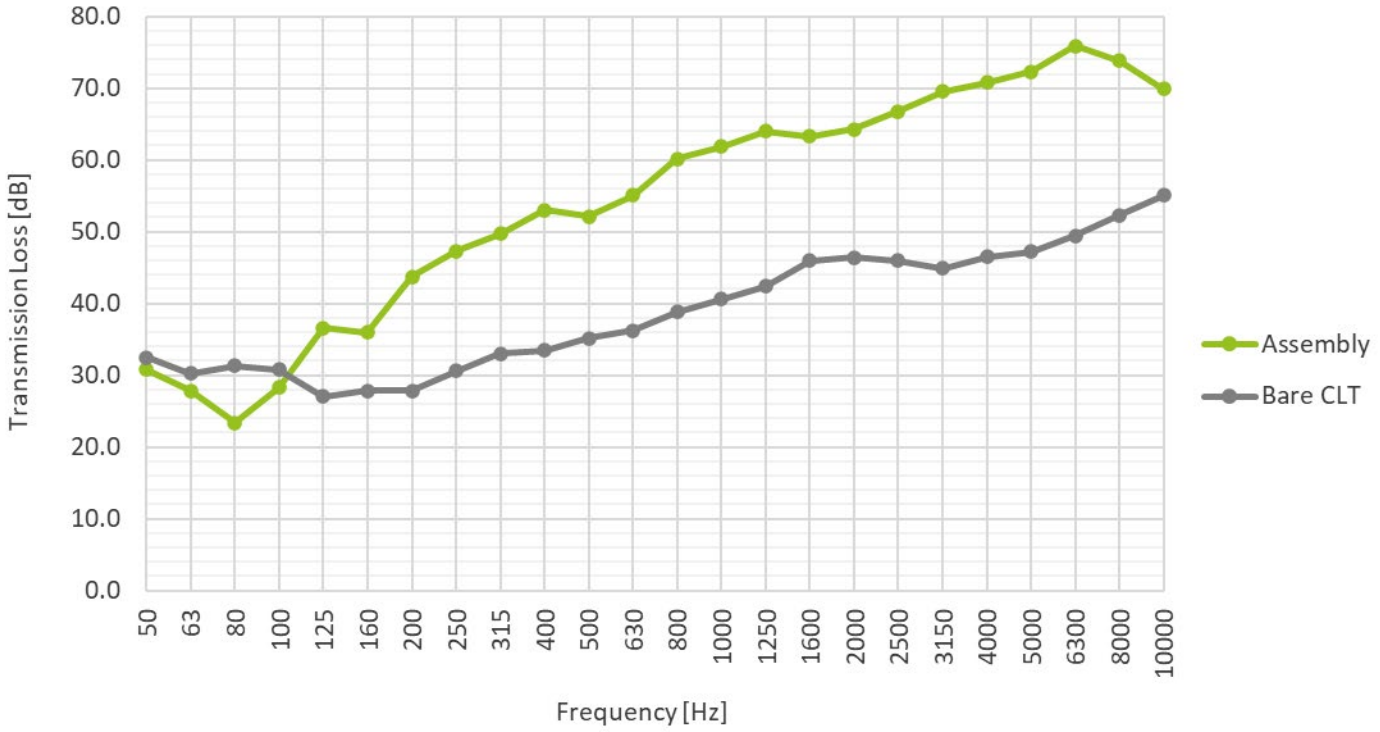
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

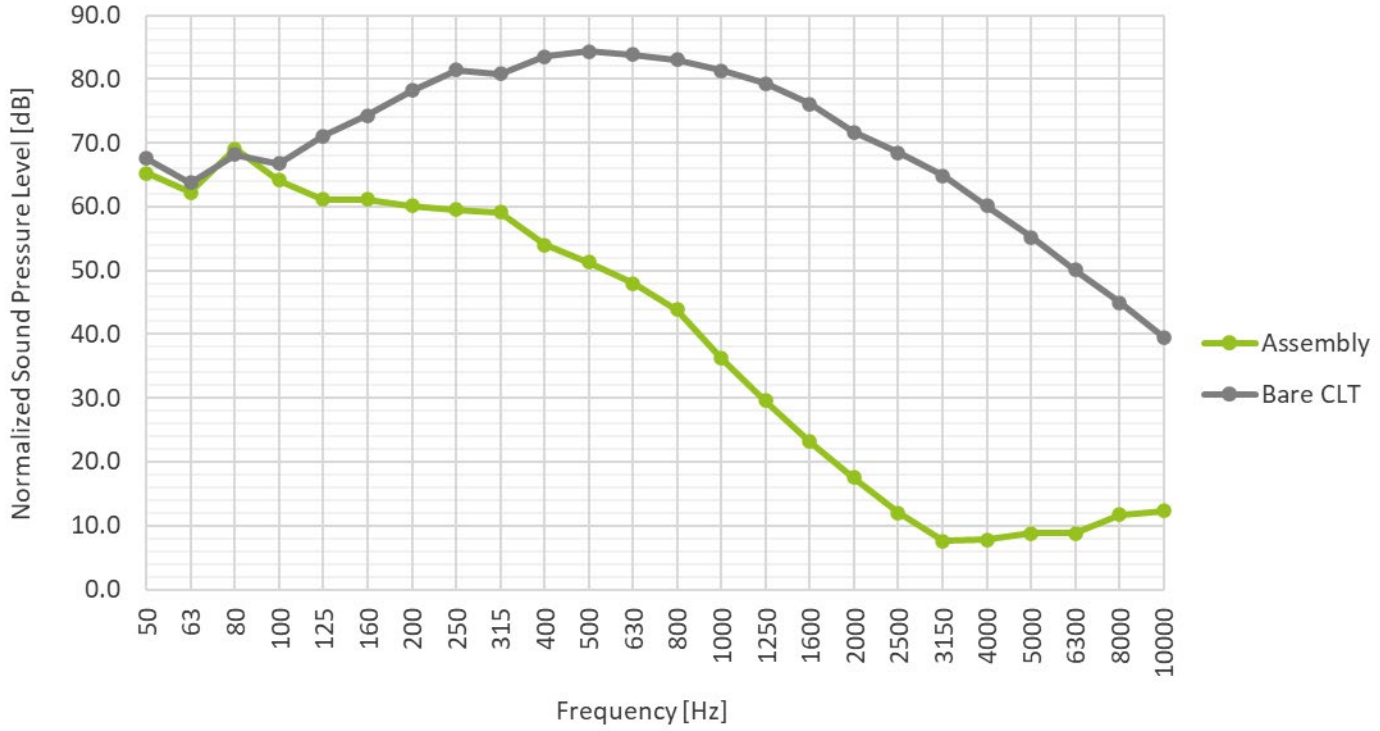
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.42			
Test Date	6/1/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 3**, 1/2" EXACOR, **soundpanel**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	30.8	-	65.3	-
63	27.8	-	62.2	-
80	23.4	-	69.1	-
100	28.3	-	64.1	8
125	36.6	4	61.1	5
160	36.0	8	61.1	5
200	43.7	3	60.1	4
250	47.3	3	59.5	3
315	49.7	3	59.1	3
400	53.0	3	54.0	0
500	52.1	5	51.3	0
630	55.1	3	48.0	0
800	60.2	0	43.9	0
1000	61.9	0	36.2	0
1250	64.0	0	29.6	0
1600	63.3	0	23.2	0
2000	64.3	0	17.5	0
2500	66.8	0	12.0	0
3150	69.5	0	7.6	0
4000	70.8	0	7.8	-
5000	72.3	-	8.8	-
6300	75.9	-	8.8	-
8000	73.8	-	11.7	-
10000	69.9	-	12.3	-
Ratings	**STC 57**	**32**	**IIC 56**	**28**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

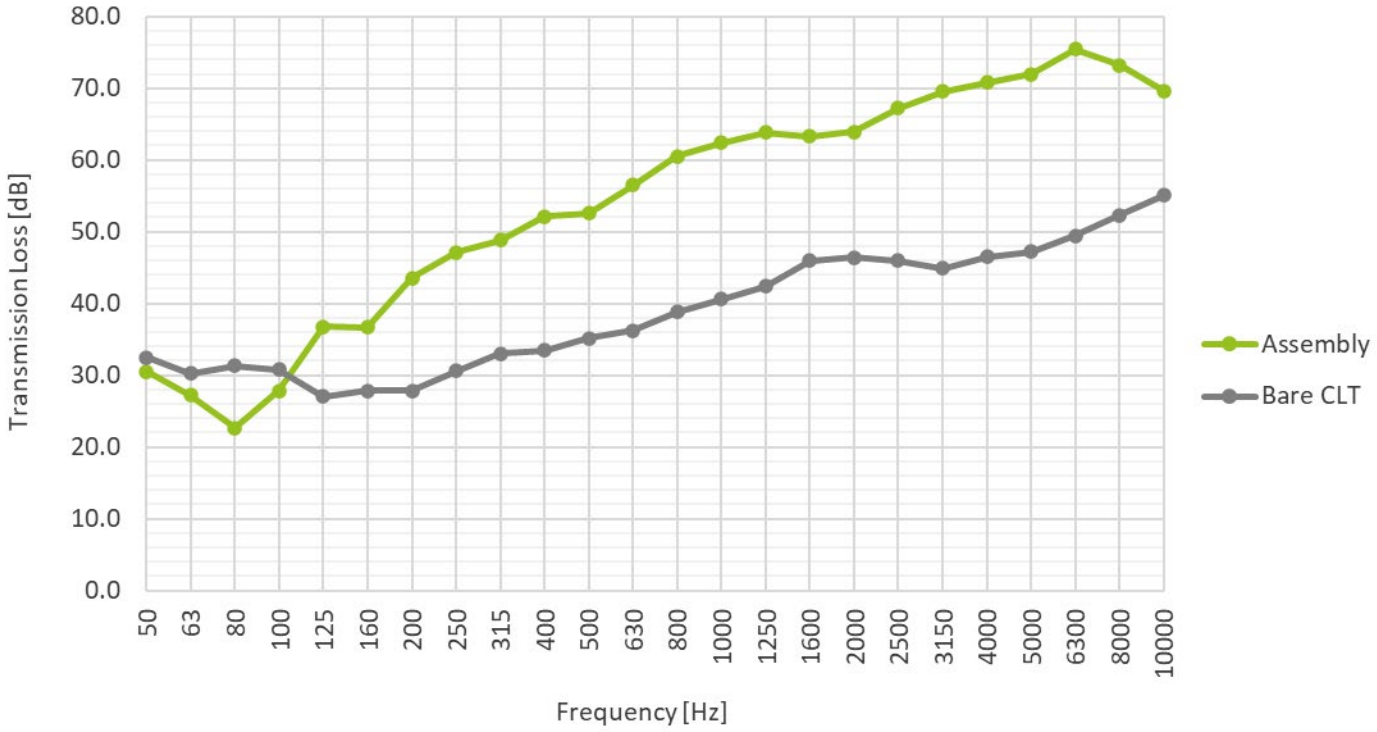
Test Number	R4167.44			
Test Date	6/1/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood sonus core 5, 5 mm EXACOR, 1/2” soundpanel, 2-19/32” Nordic 5-Ply CLT, 140 mm			
Ratings	STC 57	IIC 58	HIIC 67	LIIC 55
Detail				

Please contact us to request a copy of the official test report from Intertek.

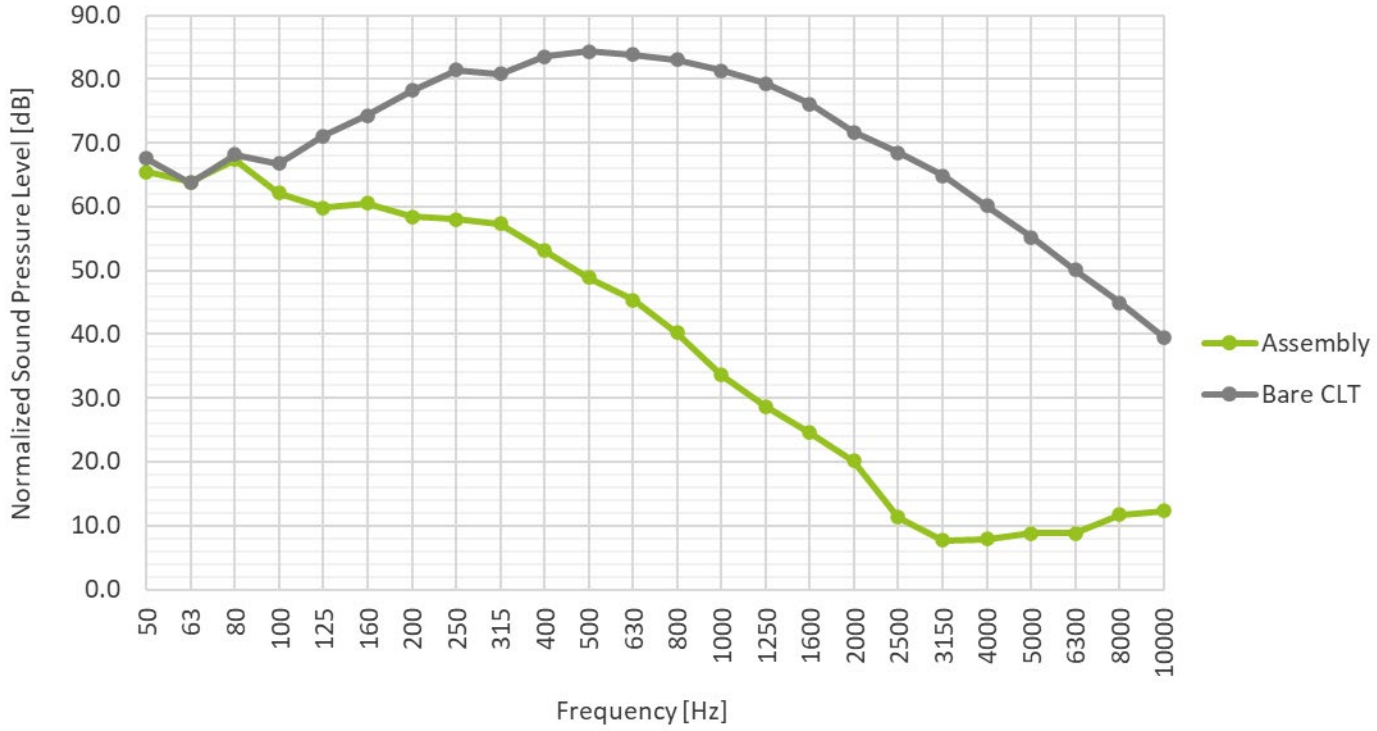
Disclaimer

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.44			
Test Date	6/1/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Engineered Hardwood, **sonus core 5**, 1/2" EXACOR, **soundpanel**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	30.5	-	65.5	-
63	27.2	-	63.8	-
80	22.7	-	67.4	-
100	27.8	-	62.1	8
125	36.8	4	59.8	6
160	36.7	7	60.5	7
200	43.6	3	58.4	4
250	47.1	3	58.0	4
315	48.8	4	57.3	3
400	52.1	4	53.1	0
500	52.6	4	48.9	0
630	56.5	1	45.4	0
800	60.5	0	40.2	0
1000	62.4	0	33.6	0
1250	63.8	0	28.7	0
1600	63.3	0	24.6	0
2000	63.9	0	20.1	0
2500	67.2	0	11.3	0
3150	69.5	0	7.7	0
4000	70.8	0	7.9	-
5000	72.0	-	8.8	-
6300	75.4	-	8.8	-
8000	73.2	-	11.7	-
10000	69.6	-	12.3	-
Ratings	**STC 57**	**30**	**IIC 58**	**32**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

TEST REPORT

ACOUSTICAL PERFORMANCE

Test Number	R4167.41			
Test Date	6/1/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	Rigid Core Click Lock LVT, 5.5 mm sonus core 3, 3 mm EXACOR, 1/2” soundpanel, 2-19/32” Nordic 5-Ply CLT, 140 mm			
Ratings	STC 57	IIC 56	HIIC 68	LIIC 48
Detail				

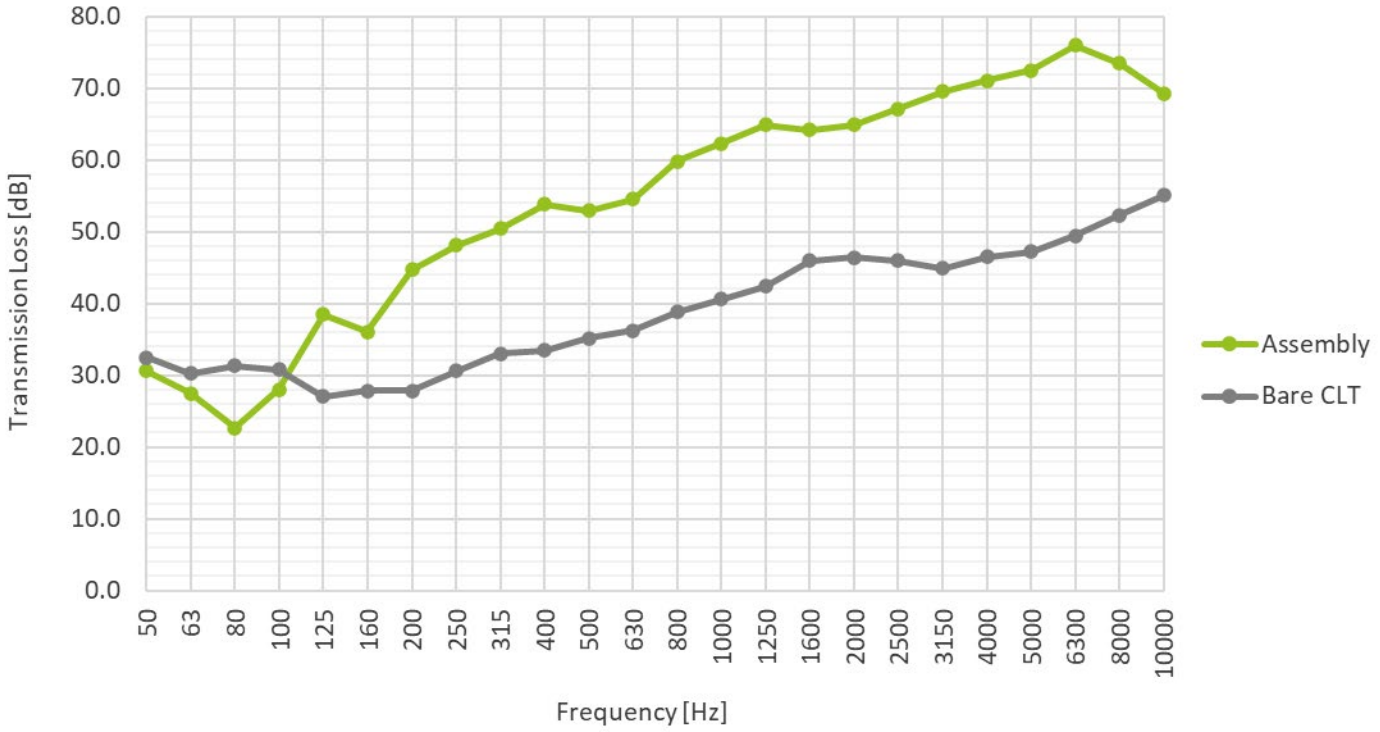
Please contact us to request a copy of the official test report from Intertek.

Disclaimer

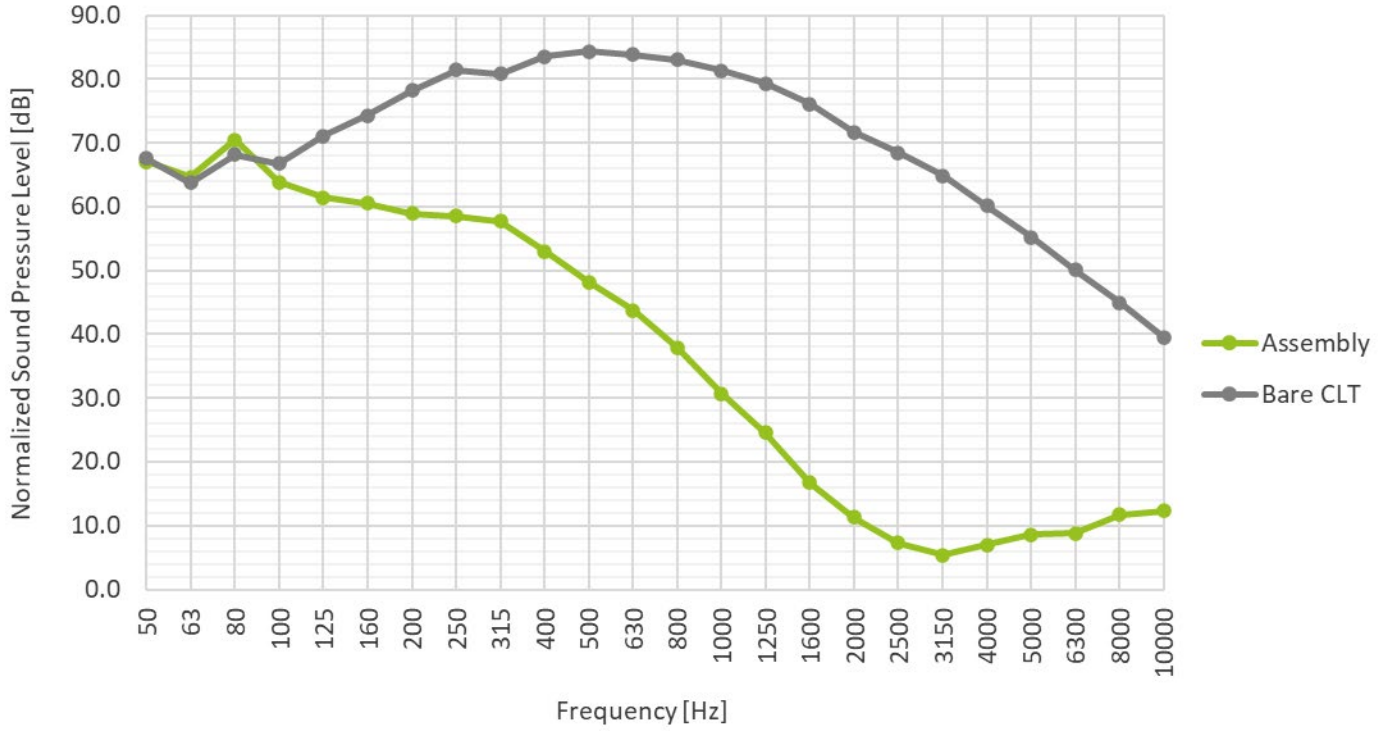
This test report is provided “as is” without any representations or guarantees, express or implied. REGUPOL America LLC makes no representations or guarantees in relation to this test report, or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of REGUPOL products and does not certify applicability for any particular or specific project. Although we make a reasonable effort to include accurate and up to date information, without prejudice to the generality of this paragraph, REGUPOL does not guarantee or warrant that the information in this test report is complete, true, accurate or non-misleading. This test report is provided solely for informational purposes. You should not act upon information without consulting REGUPOL, a subsidiary, or a professional Acoustical Consultant.

ACOUSTICAL PERFORMANCE

STC (Sound Transmission Class)



IIC (Impact Insulation Class)



TEST REPORT

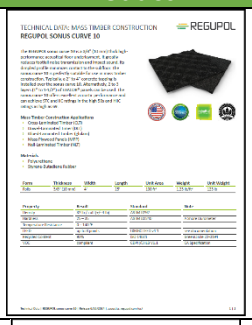
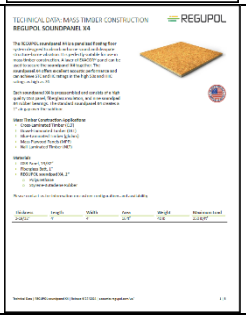
ACOUSTICAL PERFORMANCE

Test Number	R4167.41			
Test Date	6/1/2024			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	5.5 mm Rigid Core Click Lock LVT, **sonus core 3**, 1/2" EXACOR, **soundpanel**, 140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	30.6	-	67.1	-
63	27.5	-	64.6	-
80	22.7	-	70.5	-
100	28.0	-	63.8	8
125	38.5	2	61.4	5
160	36.1	8	60.5	5
200	44.7	2	58.9	3
250	48.1	2	58.5	2
315	50.4	3	57.7	2
400	53.8	2	53.0	0
500	52.9	4	48.2	0
630	54.5	4	43.8	0
800	59.8	0	37.9	0
1000	62.3	0	30.7	0
1250	64.9	0	24.6	0
1600	64.2	0	16.7	0
2000	64.9	0	11.3	0
2500	67.1	0	7.3	0
3150	69.5	0	5.4	0
4000	71.1	0	7.0	-
5000	72.5	-	8.6	-
6300	76.0	-	8.8	-
8000	73.5	-	11.7	-
10000	69.3	-	12.3	-
Ratings	**STC 57**	**27**	**IIC 56**	**25**

Bare Nordic 5-Ply CLT Test Data Included for Comparison

Test Number	N/A			
Test Date	N/A			
Test Location	Intertek (York, PA)			
Standards	ASTM E90, ASTM E492, ASTM E3222			
Assembly	140 mm Nordic 5-Ply CLT			
Frequency [Hz]	**Transmission Loss [dB]**	**Deficiencies**	**Normalized SPL [dB]**	**Deficiencies**
50	32.5	-	67.6	-
63	30.3	-	63.8	-
80	31.3	-	68.2	-
100	30.8	-	66.8	0
125	27.0	0	71.1	0
160	27.9	0	74.3	0
200	27.8	2	78.3	0
250	30.6	2	81.4	0
315	33.0	3	80.9	0
400	33.5	6	83.5	2
500	35.2	5	84.3	3
630	36.3	5	83.8	4
800	38.8	3	83.0	4
1000	40.6	2	81.3	3
1250	42.4	2	79.4	4
1600	46.0	0	76.1	4
2000	46.4	0	71.7	3
2500	46.0	0	68.4	2
3150	44.9	0	64.9	2
4000	46.5	0	60.2	-
5000	47.2	-	55.2	-
6300	49.4	-	50.1	-
8000	52.3	-	45.0	-
10000	55.1	-	39.5	-
Ratings	**STC 40**	**30**	**IIC 29**	**31**

Download TDS & Specifications

Product	Download Technical Data Sheets	Download 3 Part Specifications
	Sonus curve 10 - TDS	Sonus curve 10 – spec
	Sonus curve 17 - TDS	Sonus curve 17 - spec
	Sonus curve 25 – TDS	Sonus curve 25 - spec
	Sonus curve 50 – TDS	Sonus curve 50 - spec
	Soundpanel x4 – TDS	Soundpanel x4 - spec

TECHNICAL DATA: MASS TIMBER CONSTRUCTION

REGUPOL SONUS CURVE 10

The **REGUPOL sonus curve 10** is a 3/8" (10 mm) thick high-performance acoustical floor underlayment. It greatly reduces footfall noise transmission and impact sound. Its dimpled profile minimizes contact to the subfloor. The **sonus curve 10** is perfectly suitable for use in mass timber construction. Typically, a 2” to 4” concrete topping is installed over the **sonus curve 10**. Alternatively, 2 to 3 layers (1” to 1-1/2”) of EXACOR® panels can be used. The **sonus curve 10** offers excellent acoustic performance and can achieve STC and IIC ratings in the high 50s and HIIC ratings as high as 69.

Mass Timber Construction Applications

- Cross-Laminated Timber (CLT)
- Dowel-Laminated Timer (DLT)
- Glued-Laminated Timber (glulam)
- Mass Plywood Panels (MPP)
- Nail-Laminated Timber (NLT)

Materials

- Polyurethane
- Styrene-Butadiene Rubber

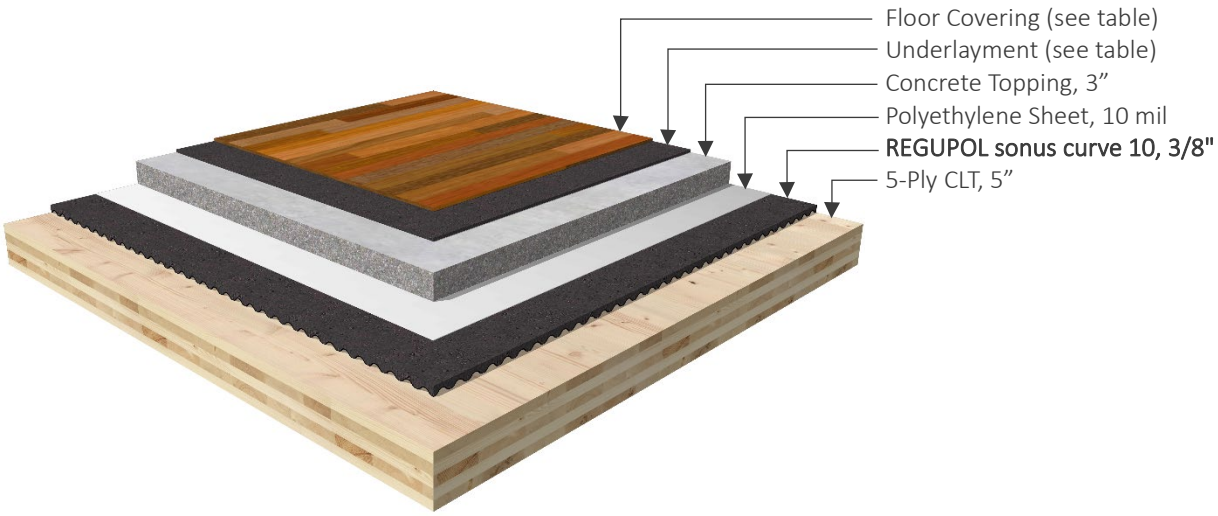
Form	Thickness	Width	Length	Unit Area	Weight	Unit Weight
Rolls	3/8” (10 mm)	4’	25’	100 ft^2	1.23 lb/ft^2	123 lb

Property	Result	Standard	Note
Density	37 lb / cuft (+/- 4 lb)	ASTM D792	
Hardness	25 – 35	ASTM D2240	A Shore Durometer
Temperature Resistance	0 – 140 ˚F		
LEED	up to 8 points	USGBC LEED v4.1	see documentation
Recycled Content	92%	ISO 14021	GreenCircle 22-0194
VOC	compliant	CDPH/EHLB V1.1	CA Specification

REGUPOL SONUS CURVE 10

Acoustical Testing

5-Ply CLT with sonus curve 10 and 3” Concrete Topping



Floor Covering	Underlayment	Test Number	HIIC	IIC	STC
None	None	R4167.10	50	49	53
Engineered Wood	sonus core 3	R4167.12	60	55	50
	sonus XL 5	R4167.14	63	55	50
SPC 5.5 mm	sonus core 3	R4167.11	63	55	50
	sonus XL 5	R4167.13	69	58	50

Note, all tests were completed with 5-Ply CLT, sonus curve 10, and a 3” concrete topping.

Accessories

REGUPOL perimeter isolation strip

Section 03 30 00: Cast-In-Place Concrete

Sonus Curve 10

PART 1: GENERAL

1.1 SECTION INCLUDES

A. Noise-reducing recycled rubber impact insulation systems

B. Adhesives

1.2 RELATED SECTIONS

A. Concrete Substrate

B. Mass Timber: CLT, DLT, MPP substrates

C. Plywood Substrate

D. Tile, Carpet, Wood

E. Noise Control and Vibration Isolation

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM).

ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in-situ Probes

1. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine

2. ASTM D5116 Standard Guide for small-scale environmental chamber determinations of Organic Emissions for Indoor Material/ Products

3. ASTM C627 Standard Test Method of Evaluating Ceramic Tile Installation Systems using the Robinson Type Floor Test

4. ASTM E1007 Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission through Floor-Ceiling assemblies and Associated support structures

5. ASTM E2179 Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission through Concrete Floors

6. ASTM E90 E2179 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission loss of Building Partitions and Elements

B. Leadership in Energy and Environmental Design - LEED®

1. LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

1.4 SYSTEM DESCRIPTION

A. Performance Requirements: Provide recycled rubber resilient underlayment padding, which has been manufactured and installed to maintain performance criteria stated by the manufacturer without defects, damage or failure.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.

2. Storage and handling requirements and recommendations.

3. Installation methods.

4. LEED Documentation of how the requirement for credit will be met.

5. South Coast Air Quality Management District (SCAQMD) Rule # 1168

6. Certification of Post Consumer and Post-Industrial materials

C. Selection Samples: For each product specified, two complete sets

D. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product and patterns.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: The manufacturer shall be a firm with a minimum of 25 years of successful experience in the manufacture of products with similar requirements.

B. Installer Qualifications: The installer shall be a firm with a minimum of two years of successful experience in installation of products with similar requirements.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish areas designated by Architect.

2. Do not proceed with the remaining work until workmanship, color, and sheen are approved by Architect.

3. Refinish the mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by the manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer:
Regupol America, LLC
11 Ritter Way, Lebanon, PA 17042
Toll Free Tel: (800) 537-8737
Tel: (717) 675-2198 Fax: (717) 675-2199
Email: bmd@regupol.com
Web: http://www.Regupol.com

B. Substitutions: Not permitted.

2.2 PRODUCT

A. Regupol Sonus Curve 10 Recycled rubber Impact Sound Insulation

1. Material:

A. Made from 100% recycled SBR (Styrene-Butadiene Rubber) tire rubber. Sonus Curve 10 is a dimpled resilient rubber-based mat that can be applied under full weight concrete or gypsum.

2. Physical Characteristics:

A. 10 mm thick with 5 mm dimple)

B. 48" inches by 25 ft rolls.

C. Material Weight .1.23 lbs./ft²

3. Impact Insulation Class
140mm 5-py CLT w/10mm Sonus Curve 10 and 3" full weight concrete and no finished flooring (IIC 49), (STC 53), (HIIC 50), (LIIC 65)

A. Regupol Sonus Perimeter Isolation Strip

1. Material:

A. Made from closed cell foam

2. Physical Characteristics:

A. 4"-6" x 50' x 1/2" thick closed cell foam isolation strips with PSA adhesive strip to be installed around perimeter or any protruding object in room to avoid sound flanking paths

B. 10 Mil Polyethylene Film (not required with plywood)

1. Material:

A. 10 mil Polyethylene sheeting to be installed over Sonus Curve 10 to prevent leakage of lightweight concrete or full weight concrete topping.

B. Geotextile fabric sheeting to be installed to prevent leakage of gypsum topping

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify the Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

3.4 PROTECTION

A. Protect installed products until completion of the project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

TECHNICAL DATA: MASS TIMBER CONSTRUCTION

REGUPOL SONUS CURVE 17

The **REGUPOL sonus curve 17** is a 3/4" (17 mm) thick high-performance acoustical floor underlayment. It greatly reduces footfall noise transmission and impact sound. Its dimpled profile minimizes contact to the subfloor. The **sonus curve 17** is perfectly suitable for use in mass timber construction. Typically, a 2” to 4” concrete topping is installed over the **sonus curve 17**. Alternatively, 2 to 3 layers (1” to 1-1/2”) of EXACOR® panels can be used. The **sonus curve 17** offers excellent acoustic performance and can achieve STC and IIC ratings in the high 50s and HIIC ratings as high as 70.

Mass Timber Construction Applications

- Cross-Laminated Timber (CLT)
- Dowel-Laminated Timer (DLT)
- Glued-Laminated Timber (glulam)
- Mass Plywood Panels (MPP)
- Nail-Laminated Timber (NLT)

Materials

- Polyurethane
- Styrene-Butadiene Rubber

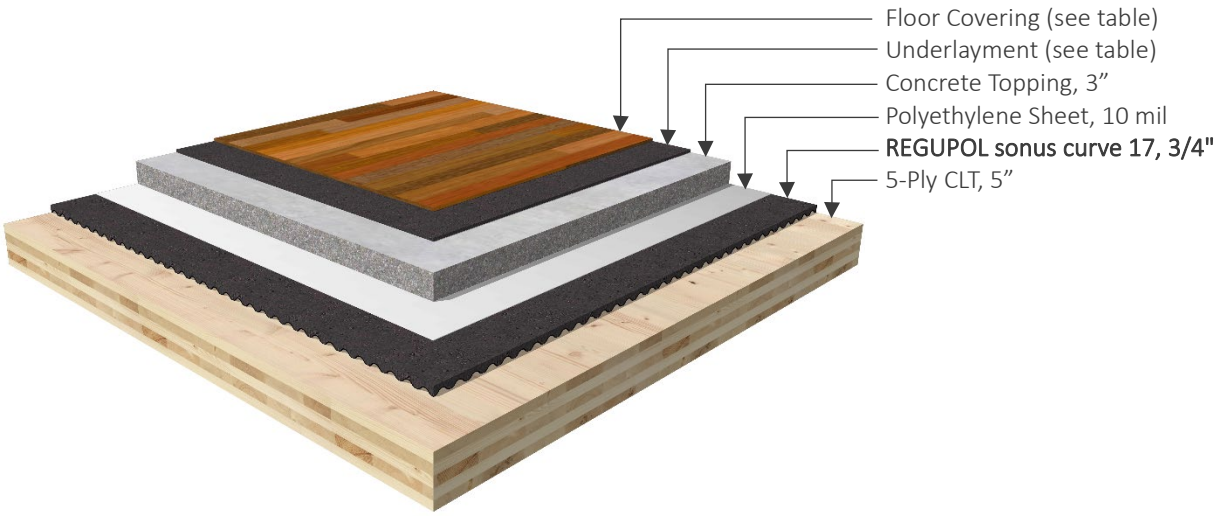
Form	Thickness	Width	Length	Unit Area	Weight	Unit Weight
Rolls	3/4” (17 mm)	4’	25’	100 ft^2	2.05 lb/ft^2	205 lb

Property	Result	Standard	Note
Density	37 lb / cuft (+/- 4 lb)	ASTM D792	
Hardness	25 – 35	ASTM D2240	A Shore Durometer
Maximum Surface Load	50 kN/m^2		
Mean Dynamic Stiffness	$s'_t \leq 15$ MN/m^3	DIN EN 29052-1	
Compressibility	c ≤ 2 mm	DIN EN 12431	
Thermal Conductivity	λ = 0.075 W/(mK)	DIN EN 12667	
Thermal Resistance	R = 0.167 $(m^2K)/W$	DIN EN 12667	
Temperature Resistance	0 – 140 ˚F		
Fire Classification	E	DIN EN 13501-1	
LEED	up to 8 points	USGBC LEED v4.1	see documentation
Recycled Content	92%	ISO 14021	GreenCircle 22-0194
VOC	compliant	CDPH/EHLB V1.1	CA Specification
Nitrosamine	Compliant	DIK Method	
PAH	Compliant	DIN EN 18287	

REGUPOL SONUS CURVE 17

Acoustical Testing

5-Ply CLT with **sonus curve 17** and 3” Concrete Topping



Floor Covering	Underlayment	Test Number	HIIC	IIC	STC
Concrete slab	None	R4167.01	51	50	54
Engineered Wood	sonus core 3	R4167.03	61	55	52
	sonus core 5	R4167.05	62	55	52
	sonus core 10	R4167.07	64	55	52
	sonus XL 5	R4167.09	66	56	52
SPC 5.5 mm	sonus core 3	R4167.02	64	56	53
	sonus core 5	R4167.04	68	56	52
	sonus core 10	R4167.06	66	55	53
	sonus XL 5	R4167.08	70	57	52

*Note, all tests were completed with 5-Ply CLT, **sonus curve 17**, and a 3” concrete topping.*

Accessories

REGUPOL perimeter isolation strip

 | 11 Ritter Way, Lebanon, PA 17042 | (800) 537-8737 | acoustics@regupol.com

Section 03 30 00: Cast-In-Place Concrete

Sonus Curve 17

PART 1: GENERAL

1.1 SECTION INCLUDES

A. Noise-reducing recycled rubber impact insulation systems

B. Adhesives

1.2 RELATED SECTIONS

A. Concrete Substrate

B. Mass Timber: CLT, DLT, MPP substrates

C. Plywood Substrate

D. Tile, Carpet, Wood

E. Noise Control and Vibration Isolation

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM).

ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in-situ Probes

1. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine

2. ASTM D5116 Standard Guide for small-scale environmental chamber determinations of Organic Emissions for Indoor Material/ Products

3. ASTM C627 Standard Test Method of Evaluating Ceramic Tile Installation Systems using the Robinson Type Floor Test

4. ASTM E1007 Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission through Floor-Ceiling assemblies and Associated support structures

5. ASTM E2179 Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission through Concrete Floors

6. ASTM E90 E2179 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission loss of Building Partitions and Elements

B. Leadership in Energy and Environmental Design - LEED®

1. LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

1.4 SYSTEM DESCRIPTION

A. Performance Requirements: Provide recycled rubber resilient underlayment padding, which has been manufactured and installed to maintain performance criteria stated by the manufacturer without defects, damage or failure.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.

2. Storage and handling requirements and recommendations.

3. Installation methods.

4. LEED Documentation of how the requirement for credit will be met.

5. South Coast Air Quality Management District (SCAQMD) Rule # 1168

6. Certification of Post Consumer and Post-Industrial materials

C. Selection Samples: For each product specified, two complete sets

D. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product and patterns.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: The manufacturer shall be a firm with a minimum of 25 years of successful experience in the manufacture of products with similar requirements.

B. Installer Qualifications: The installer shall be a firm with a minimum of two years of successful experience in installation of products with similar requirements.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish areas designated by Architect.

2. Do not proceed with the remaining work until workmanship, color, and sheen are approved by Architect.

3. Refinish the mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by the manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer:
Regupol America, LLC
11 Ritter Way, Lebanon, PA 17042
Toll Free Tel: (800) 537-8737
Tel: (717) 675-2198 Fax: (717) 675-2199
Email: bmd@regupol.com
Web: http://www.Regupol.com

B. Substitutions: Not permitted.

2.2 PRODUCT

A. Regupol Sonus Curve 17 Recycled rubber Impact Sound Insulation

1. Material:

A. Made from 100% recycled SBR (Styrene-Butadiene Rubber) tire rubber. Sonus Curve 17 is a dimpled resilient rubber-based mat that can be applied under full weight concrete or gypsum.

2. Physical Characteristics:

A. 17mm thick with 8mm dimple

B. 48" inches by 25 ft rolls.

C. Material Weight 2.05 lbs./ft²

3. Impact Insulation Class
140mm 5-py CLT w/17mm Sonus Curve 17 and 3" full weight concrete and no finished flooring (IIC 50), (STC 53), (HIIC 50),(LIIC 65)

A. Regupol Sonus Perimeter Isolation Strip

1. Material:

A. Made from closed cell foam

2. Physical Characteristics:

A. 4"-6" x 50' x 1/2" thick closed cell foam isolation strips with PSA adhesive strip to be installed around perimeter or any protruding object in room to avoid sound flanking paths

B. 10 Mil Polyethylene Film (not required with plywood)

1. Material:

A. 10 mil Polyethylene sheeting to be installed over Sonus Curve 17 to prevent leakage of lightweight concrete or full weight concrete topping.

B. Geotextile fabric sheeting to be installed to prevent leakage of gypsum topping

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify the Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

3.4 PROTECTION

A. Protect installed products until completion of the project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

TECHNICAL DATA: MASS TIMBER CONSTRUCTION

REGUPOL SONUS CURVE 25

The **REGUPOL sonus curve 25** is a 1" (25 mm) thick high-performance acoustical floor underlayment. It greatly reduces footfall noise transmission and impact sound. Its dimpled profile minimizes contact to the subfloor. The **sonus curve 25** is perfectly suitable for use in mass timber construction. Typically, a 2” to 4” concrete topping is installed over the **sonus curve 25**. Alternatively, 2 to 3 layers (1” to 1-1/2”) of EXACOR® panels can be used. The **sonus curve 25** offers excellent acoustic performance and can achieve STC and IIC ratings in the high 50s and HIIC ratings as high as 77.

Mass Timber Construction Applications

- Cross-Laminated Timber (CLT)
- Dowel-Laminated Timer (DLT)
- Glued-Laminated Timber (glulam)
- Mass Plywood Panels (MPP)
- Nail-Laminated Timber (NLT)

Materials

- Polyurethane
- Styrene-Butadiene Rubber

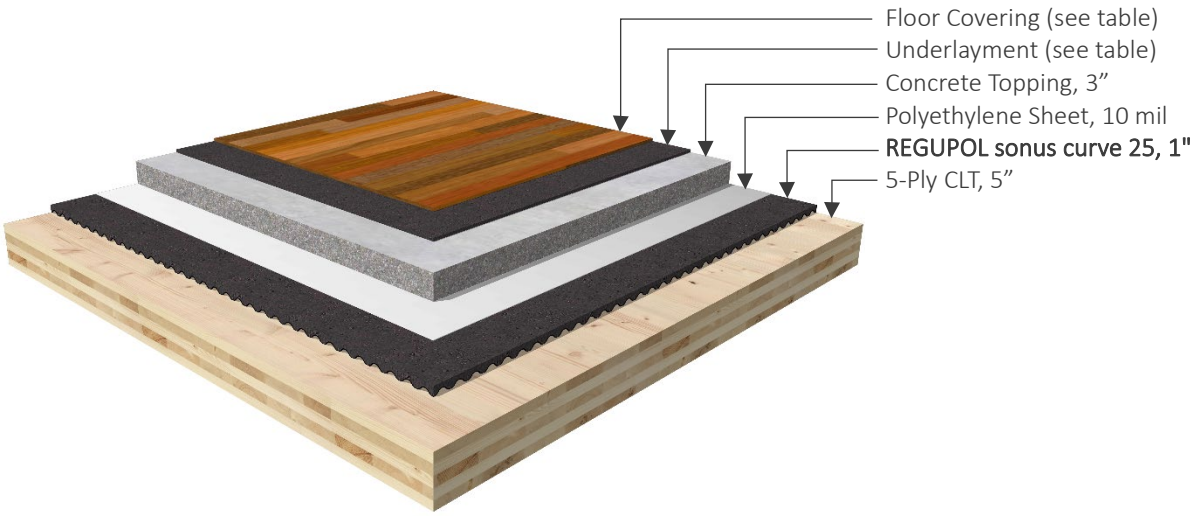
Form	Thickness	Width	Length	Unit Area	Weight	Unit Weight
Rolls	1” (25 mm)	4’	25’	100 ft^2	3 lb/ft^2	300 lb

Property	Result	Standard	Note
Density	37 lb / cuft (+/- 4 lb)	ASTM D792	
Hardness	25 – 35	ASTM D2240	A Shore Durometer
Maximum Surface Load	50 kN/m^2		
Mean Dynamic Stiffness	$s'_t \leq 13$ MN/m^3	DIN EN 29052-1	
Compressibility	c ≤ 2 mm	DIN EN 12431	
Thermal Conductivity	λ = 0.075 W/(mK)	DIN EN 12667	
Thermal Resistance	R = 0.213 $(m^2K)/W$	DIN EN 12667	
Temperature Resistance	0 – 140 ˚F		
Fire Classification	E	DIN EN 13501-1	
LEED	up to 8 points	USGBC LEED v4.1	see documentation
Recycled Content	92%	ISO 14021	GreenCircle 22-0194
VOC	compliant	CDPH/EHLB V1.1	CA Specification
Nitrosamine	compliant	DIK Method	
PAH	compliant	DIN EN 18287	

REGUPOL SONUS CURVE 25

Acoustical Testing

5-Ply CLT with **sonus curve 25** and 3” Concrete Topping



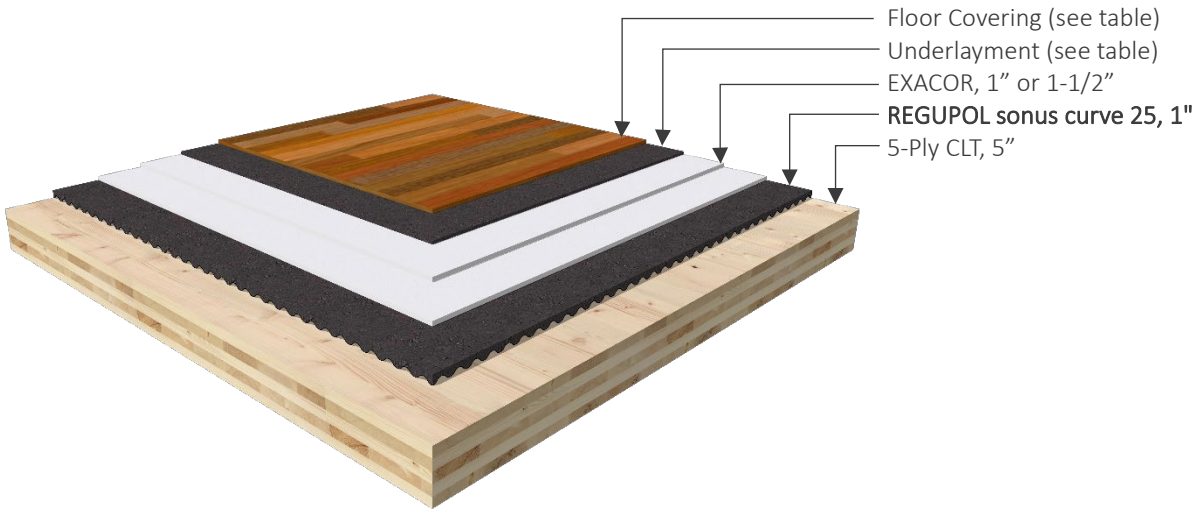
Floor Covering	Underlayment	Test Number	HIIC	IIC	STC
None	None	R4167.15	52	52	54
Engineered Wood	sonus core 3	R4167.17	66	57	54
	sonus XL 5	R4167.19	71	59	54
SPC, 5.5 mm	sonus core 3	R4167.16	68	58	54
	sonus XL 5	R4167.18	77	59	54

*Note, all tests were completed with 5-Ply CLT, **sonus curve 25**, and a 3” concrete topping.*

REGUPOL SONUS CURVE 25

Acoustical Testing

5-Ply CLT with **sonus curve 25** and EXACOR



Floor Covering	Underlayment	Topping	Test Number	HIIC	IIC	STC
None	None	EXACOR, 1”	R4167.31	58	50	52
		EXACOR, 1-1/2”	R4167.27	61	53	53
Engineered Wood	sonus core 10	EXACOR, 1”	R4167.34	69	52	52
	sonus core 3	EXACOR, 1-1/2”	R4167.30	69	53	53
LVT, 2 mm	sonus multi 3	EXACOR, 1”	R4167.32	64	50	52
		EXACOR, 1-1/2”	R4167.28	66	53	53
SPC, 5.5 mm	sonus XL 5	EXACOR, 1”	R4167.33	73	51	52
		EXACOR, 1-1/2”	R4167.29	76	54	53

*Note, all tests were completed with 5-Ply CLT, **sonus curve 25**, and EXACOR.*

Accessories

REGUPOL perimeter isolation strip

Section 03 30 00: Cast-In-Place Concrete

Sonus Curve 25

PART 1: GENERAL

1.1 SECTION INCLUDES

A. Noise-reducing recycled rubber impact insulation systems

B. Adhesives

1.2 RELATED SECTIONS

A. Concrete Substrate

B. Mass Timber: CLT, DLT, MPP substrates

C. Plywood Substrate

D. Tile, Carpet, Wood

E. Noise Control and Vibration Isolation

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM).

ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in-situ Probes

1. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine

2. ASTM D5116 Standard Guide for small-scale environmental chamber determinations of Organic Emissions for Indoor Material/ Products

3. ASTM C627 Standard Test Method of Evaluating Ceramic Tile Installation Systems using the Robinson Type Floor Test

4. ASTM E1007 Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission through Floor-Ceiling assemblies and Associated support structures

5. ASTM E2179 Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission through Concrete Floors

6. ASTM E90 E2179 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission loss of Building Partitions and Elements

B. Leadership in Energy and Environmental Design - LEED®

1. LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

1.4 SYSTEM DESCRIPTION

A. Performance Requirements: Provide recycled rubber resilient underlayment padding, which has been manufactured and installed to maintain performance criteria stated by the manufacturer without defects, damage or failure.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.

2. Storage and handling requirements and recommendations.

3. Installation methods.

4. LEED Documentation of how the requirement for credit will be met.

5. South Coast Air Quality Management District (SCAQMD) Rule # 1168

6. Certification of Post Consumer and Post-Industrial materials

C. Selection Samples: For each product specified, two complete sets

D. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product and patterns.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: The manufacturer shall be a firm with a minimum of 25 years of successful experience in the manufacture of products with similar requirements.

B. Installer Qualifications: The installer shall be a firm with a minimum of two years of successful experience in installation of products with similar requirements.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish areas designated by Architect.

2. Do not proceed with the remaining work until workmanship, color, and sheen are approved by Architect.

3. Refinish the mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by the manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer:
Regupol America, LLC
11 Ritter Way, Lebanon, PA 17042
Toll Free Tel: (800) 537-8737
Tel: (717) 675-2198 Fax: (717) 675-2199
Email: bmd@regupol.com
Web: http://www.Regupol.com

B. Substitutions: Not permitted.

2.2 PRODUCT

A. Regupol Sonus Curve 25 Recycled rubber Impact Sound Insulation

1. Material:

A. Made from 100% recycled SBR (Styrene-Butadiene Rubber) tire rubber. Sonus Curve 25 is a dimpled resilient rubber-based mat that can be applied under full weight concrete or gypsum.

2. Physical Characteristics:

A. 25 mm thick with 7 mm dimple

B. 48" inches by 25 ft rolls.

C. Material Weight 3.0 lbs./ft²

3. Impact Insulation Class
140mm 5-py CLT w/25mm Sonus Curve 25 and 3" full weight concrete and no finished flooring (IIC 52), (STC 54), (HIIC 52),(LIIC 61)

A. Regupol Sonus Perimeter Isolation Strip

1. Material:

A. Made from closed cell foam

2. Physical Characteristics:

A. 4"-6" x 50' x 1/2" thick closed cell foam isolation strips with PSA adhesive strip to be installed around perimeter or any protruding object in room to avoid sound flanking paths

B. 10 Mil Polyethylene Film (not required with plywood)

1. Material:

A. 10 mil Polyethylene sheeting to be installed over Sonus Curve 25 to prevent leakage of lightweight concrete or full weight concrete topping.

B. Geotextile fabric sheeting to be installed to prevent leakage of gypsum topping

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify the Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

3.4 PROTECTION

A. Protect installed products until completion of the project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

TECHNICAL DATA: MASS TIMBER CONSTRUCTION

REGUPOL SONUS CURVE 50

The **REGUPOL sonus curve 50** is a 2” (50 mm) thick high-performance acoustical floor underlayment. It consists of two layers of the **sonus curve 25**. It greatly reduces footfall noise transmission and impact sound. Its dimpled profile minimizes contact to the subfloor. The **sonus curve 50** is perfectly suitable for use in mass timber construction. Typically, a 2” to 4” concrete topping is installed over the **sonus curve 50**. Alternatively, 2 to 3 layers (1” to 1-1/2”) of EXACOR® panels can be used. The **sonus curve 50** offers excellent acoustic performance and can achieve STC and IIC ratings in the 60s and HIIC ratings as high as 81.

Mass Timber Construction Applications

- Cross-Laminated Timber (CLT)
- Dowel-Laminated Timer (DLT)
- Glued-Laminated Timber (glulam)
- Mass Plywood Panels (MPP)
- Nail-Laminated Timber (NLT)

Materials

- Polyurethane
- Styrene-Butadiene Rubber

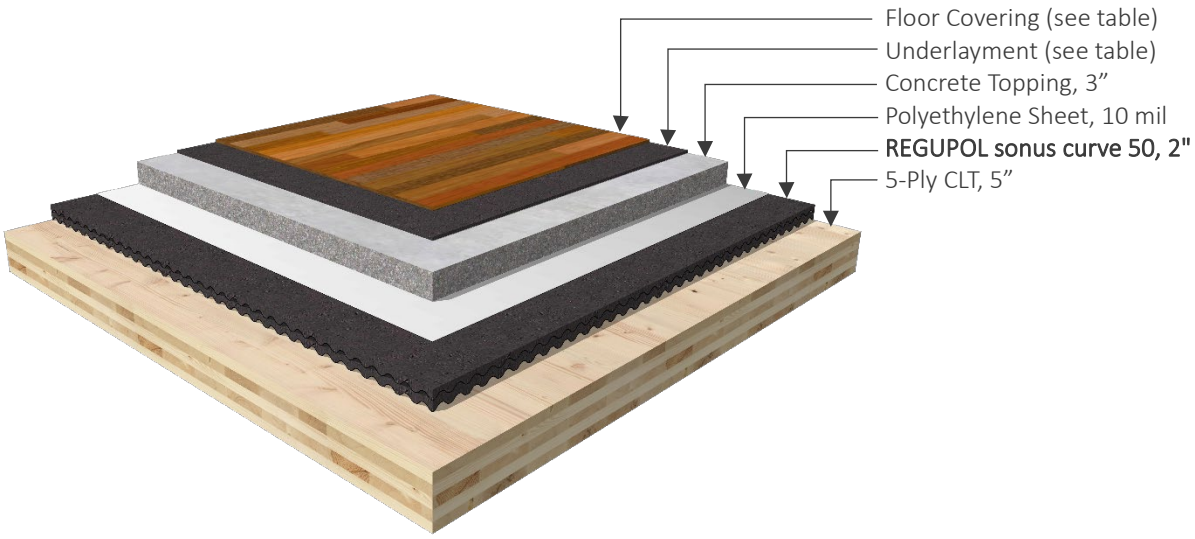
Form	Thickness	Width	Length	Unit Area	Weight	Unit Weight
Rolls	1” (25 mm)	4’	25’	100 ft^2	3 lb/ft^2	300 lb
*Note, the **sonus curve 50** consists of two layers, each 1” thick (25 mm) for a total 2” thickness (50 mm).*						

Property	Result	Standard	Note
Density	37 lb / cuft (+/- 4 lb)	ASTM D792	
Hardness	25 – 35	ASTM D2240	A Shore Durometer
Maximum Surface Load	50 kN/m^2		
Mean Dynamic Stiffness	$s'_t \leq 13$ MN/m^3	DIN EN 29052-1	
Compressibility	$c \leq 2$ mm	DIN EN 12431	
Thermal Conductivity	$\lambda = 0.075$ W/(mK)	DIN EN 12667	
Thermal Resistance	R = 0.213 $(m^2K)/W$	DIN EN 12667	
Temperature Resistance	0 – 140 ˚F		
Fire Classification	E	DIN EN 13501-1	
LEED	up to 8 points	USGBC LEED v4.1	see documentation
Recycled Content	92%	ISO 14021	GreenCircle 22-0194
VOC	compliant	CDPH/EHLB V1.1	CA Specification
Nitrosamine	compliant	DIK Method	
PAH	compliant	DIN EN 18287	

REGUPOL SONUS CURVE 50

Acoustical Testing

5-Ply CLT with sonus curve 50 and 3” Concrete Topping



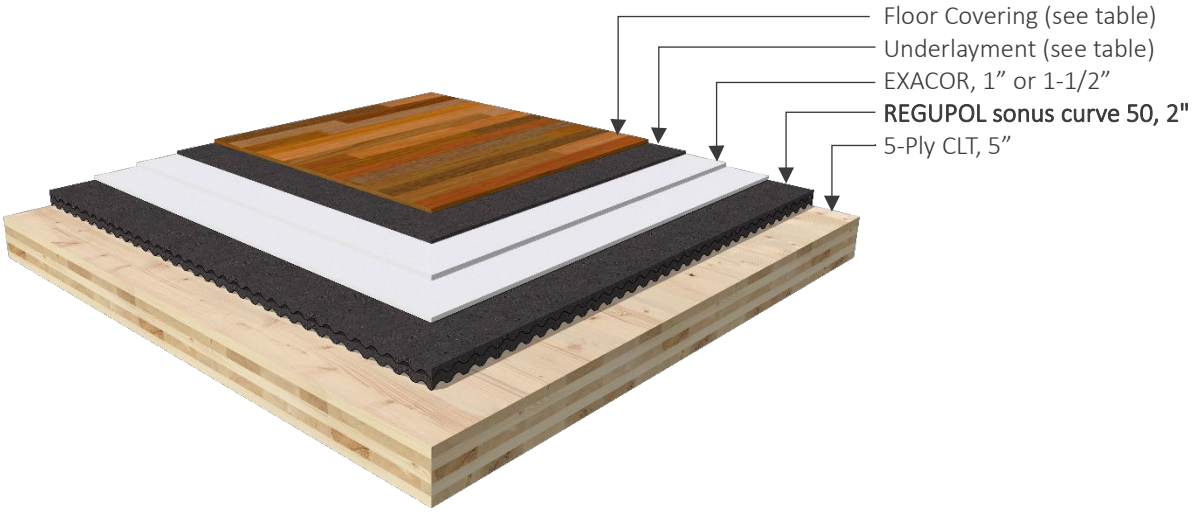
Floor Covering	Underlayment	Test Number	HIIC	IIC	STC
None	None	R4167.20	54	54	57
Engineered Wood	sonus core 3	R4167.22	72	63	57
	sonus XL 5	R4167.24	75	64	57
SPC, 5.5 mm	sonus core 3	R4167.21	76	63	57
	sonus XL 5	R4167.23	80	65	57

Note, all tests were completed with 5-Ply CLT, sonus curve 50, and a 3” concrete topping.

REGUPOL SONUS CURVE 50

Acoustical Testing

5-Ply CLT with **sonus curve 50** and EXACOR



Floor Covering	Underlayment	Topping	Test Number	HIIC	IIC	STC
None	None	EXACOR, 1”	R4167.26	62	52	54
		EXACOR, 1-1/2”	R4167.25	63	55	57
Engineered Wood	sonus core 3	EXACOR, 1-1/2”	R4167.35	73	55	59
	sonus core 10	EXACOR, 1-1/2”	R4167.37	77	56	58
	sonus XL 5	EXACOR, 1-1/2”	R4167.38	77	57	58
SPC, 5.5 mm	sonus core 3	EXACOR, 1-1/2”	R4167.36	78	56	58
	sonus XL 5	EXACOR, 1-1/2”	R4167.39	81	57	58

*Note, all tests were completed with 5-Ply CLT, **sonus curve 50**, and EXACOR.*

Accessories

REGUPOL perimeter isolation strip

Section 03 30 00: Cast-In-Place Concrete

Sonus Curve 50

PART 1: GENERAL

1.1 SECTION INCLUDES

A. Noise-reducing recycled rubber impact insulation systems

B. Adhesives

1.2 RELATED SECTIONS

A. Concrete Substrate

B. Mass Timber: CLT, DLT, MPP substrates

C. Plywood Substrate

D. Tile, Carpet, Wood

E. Noise Control and Vibration Isolation

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM).

ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in-situ Probes

1. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine

2. ASTM D5116 Standard Guide for small-scale environmental chamber determinations of Organic Emissions for Indoor Material/ Products

3. ASTM C627 Standard Test Method of Evaluating Ceramic Tile Installation Systems using the Robinson Type Floor Test

4. ASTM E1007 Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission through Floor-Ceiling assemblies and Associated support structures

5. ASTM E2179 Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission through Concrete Floors

6. ASTM E90 E2179 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission loss of Building Partitions and Elements

B. Leadership in Energy and Environmental Design - LEED®

1. LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

1.4 SYSTEM DESCRIPTION

A. Performance Requirements: Provide recycled rubber resilient underlayment padding, which has been manufactured and installed to maintain performance criteria stated by the manufacturer without defects, damage or failure.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.

2. Storage and handling requirements and recommendations.

3. Installation methods.

4. LEED Documentation of how the requirement for credit will be met.

5. South Coast Air Quality Management District (SCAQMD) Rule # 1168

6. Certification of Post Consumer and Post-Industrial materials

C. Selection Samples: For each product specified, two complete sets

D. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product and patterns.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: The manufacturer shall be a firm with a minimum of 25 years of successful experience in the manufacture of products with similar requirements.

B. Installer Qualifications: The installer shall be a firm with a minimum of two years of successful experience in installation of products with similar requirements.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish areas designated by Architect.

2. Do not proceed with the remaining work until workmanship, color, and sheen are approved by Architect.

3. Refinish the mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by the manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer:
Regupol America, LLC
11 Ritter Way, Lebanon, PA 17042
Toll Free Tel: (800) 537-8737
Tel: (717) 675-2198 Fax: (717) 675-2199
Email: bmd@regupol.com
Web: http://www.Regupol.com

B. Substitutions: Not permitted.

2.2 PRODUCT

A. Regupol Sonus Curve 50 Recycled rubber Impact Sound Insulation

1. Material:

A. Made from 100% recycled SBR (Styrene-Butadiene Rubber) tire rubber. Sonus Curve 50 is a dimpled resilient rubber-based mat that can be applied under full weight concrete or gypsum.

2. Physical Characteristics:

A. 50 mm thick (2-layers Curve 25 with 7 mm dimple)

B. 48" inches by 25 ft rolls.

C. Material Weight 6.0 lbs./ft²

3. Impact Insulation Class
140mm 5-py CLT w/50mm Sonus Curve 50 and 3" full weight concrete and no finished flooring (IIC 54), (STC 57), (HIIC 54), (LIIC 65)

A. Regupol Sonus Perimeter Isolation Strip

1. Material:

A. Made from closed cell foam

2. Physical Characteristics:

A. 4"-6" x 50' x 1/2" thick closed cell foam isolation strips with PSA adhesive strip to be installed around perimeter or any protruding object in room to avoid sound flanking paths

B. 10 Mil Polyethylene Film (not required with plywood)

1. Material:

A. 10 mil Polyethylene sheeting to be installed over Sonus Curve 50 to prevent leakage of lightweight concrete or full weight concrete topping.

B. Geotextile fabric sheeting to be installed to prevent leakage of gypsum topping

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify the Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

3.4 PROTECTION

A. Protect installed products until completion of the project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

TECHNICAL DATA: MASS TIMBER CONSTRUCTION

REGUPOL SOUNDPANEL X4

The **REGUPOL soundpanel X4** is a panelized floating floor system designed to absorb airborne sound and dissipate structure-borne vibration. It is perfectly suitable for use in mass timber construction. A layer of EXACOR® panel can be used to secure the **soundpanel X4** together. The **soundpanel X4** offers excellent acoustic performance and can achieve STC and IIC ratings in the high 50s and HIIC ratings as high as 74.

Each **soundpanel X4** is preassembled and consists of a high quality OSB panel, fiberglass insulation, and nine **soundpad X4** rubber bearings. The standard **soundpanel X4** creates a 1” air gap over the subfloor.

Mass Timber Construction Applications

- Cross-Laminated Timber (CLT)
- Dowel-Laminated Timber (DLT)
- Glue-Laminated Timber (glulam)
- Mass Plywood Panels (MPP)
- Nail-Laminated Timber (NLT)

Materials

- OSB Panel, 19/32”
- Fiberglass Batt, 1”
- **REGUPOL soundpad X4, 2”**
  - Polyurethane
  - Styrene-Butadiene Rubber

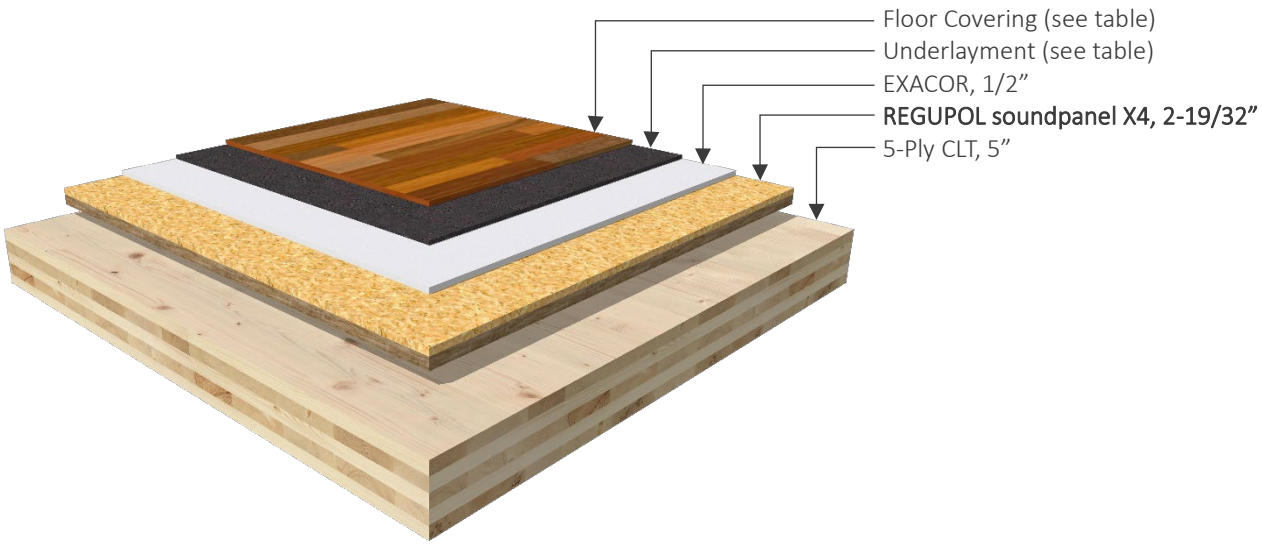
Please contact us for information on custom configurations and availability.

Thickness	Length	Width	Area	Weight	Maximum Load
2-19/32”	4’	4’	16 ft^2	40 lb	250 lb/ft^2

REGUPOL SOUNDPANEL X4

Acoustical Testing

5-Ply CLT with **soundpanel X4** and EXACOR



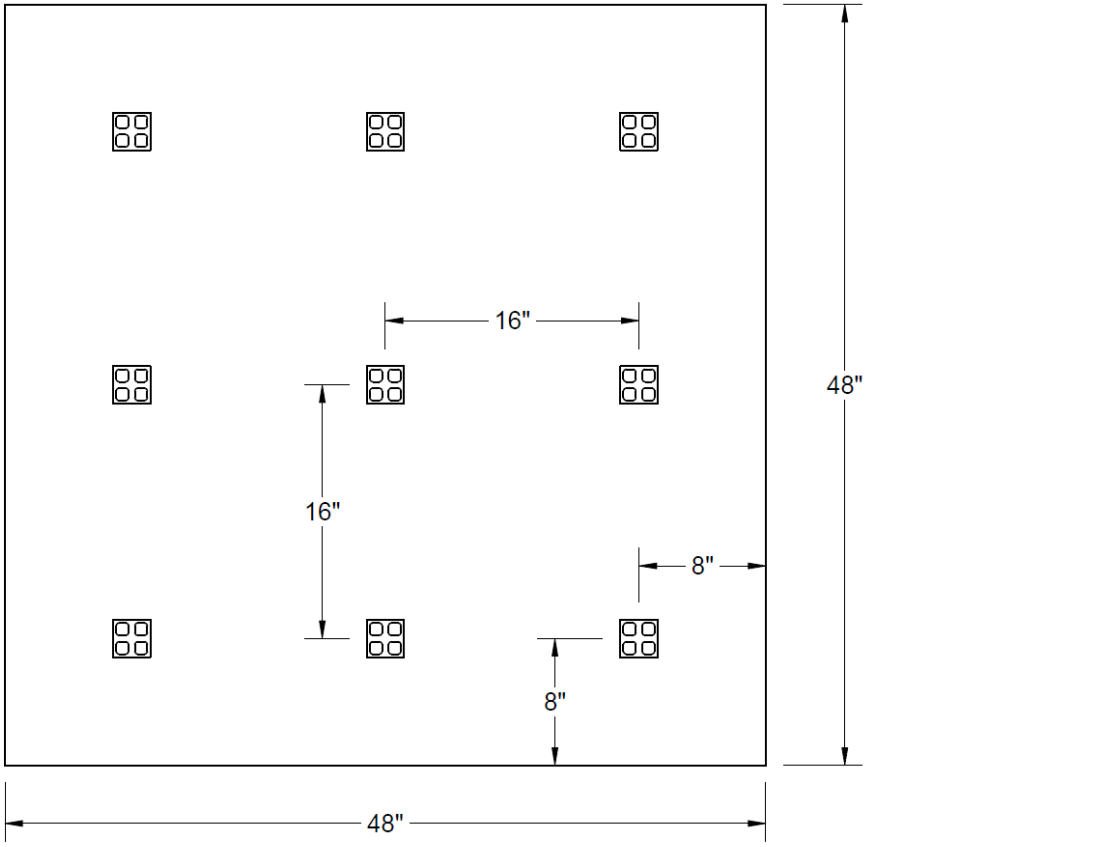
Floor Covering	Underlayment	Test Number	HIIC	IIC	STC
None	None	R4167.40	54	51	55
Engineered Wood	**sonus core 3**	R4167.42	65	56	57
	sonus core 5	R4167.44	67	58	57
	sonus core 10	R4167.46	68	57	58
	sonus XL 5	R4167.48	71	58	57
SPC, 5.5 mm	**sonus core 3**	R4167.41	68	56	57
	sonus core 5	R4167.43	68	56	57
	sonus core 10	R4167.45	68	57	57
	sonus XL 5	R4167.47	74	58	57
aktiv, 9 mm	None	R4167.49	66	55	57

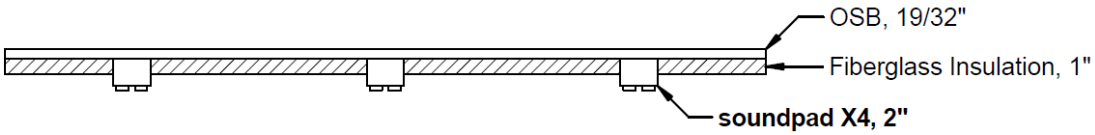
*Note, all tests were completed with 5-Ply CLT, **soundpanel X4**, and EXACOR 1/2".*

REGUPOL SOUNDPANEL X4

Dimensions

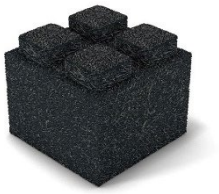
Total Thickness: 2-19/32”





Accessories

REGUPOL soundpad X4



REGUPOL perimeter isolation strip

REGUPOL America LLC
11 Ritter Way
Lebanon, PA 17042
phone +1 800 537 8737
info@**REGUPOL**.com

REGUPOL BSW GmbH
REGUPOL Australia Pty. Ltd.
REGUPOL Acoustics Middle East FZE
REGUPOL Schweiz AG
REGUPOL Zebra Athletics LLC
BSW Shanghai CO. LTD.

REGUPOL.us

MASS TIMBER US
RAAP-2025.08.0059V1