



Stravifloor Mat-F4.5_e Datasheet

Resilient **acoustic underlayment** made of agglomerated recycled SBR (Styrene Butadiene Rubber) with PU (polyurethane) elastomer bonding agent for impact noise insulation for different types of flooring: glued and non-glued flooring.



SYSTEM COMPONENTS & DIMENSIONS

- Mat dimension: 1 000 x 7 000 x 4.5 mm (3' 3-3/8" x 22' 11-5/8" x 3/16")



PHYSICAL & MECHANICAL PROPERTIES

Physical & Mechanical Properties

Max. total load 0.1 MPa (14.5 psi)	Max. occasional load 0.25 MPa (36.3 psi)	Density⁽¹⁾ 880 kg/m ³ (54.9 lb/ft ³)	Surface weight⁽¹⁾ 3.96 kg/m ² (0.81 lb/ft ²) (+5%)
Max. dynamic stiffness⁽²⁾ 152 MN/m ³ (9,39 lb/in ³)	Squareness⁽³⁾ ≤ 5 mm/m (≤ 0.006 in/ft)	Compressibility⁽⁴⁾ ≤ 0.3 mm (≤ 0.012 in)	Compressive stress at 10%, △10%⁽⁵⁾ ≥ 38.7 kPa (≥ 5.61 psi)
Max. change of the relative deformation, Δε⁽⁶⁾ < 5%		Resistance to breaking⁽⁸⁾ Pass ⁽⁹⁾	
Compressive creep @20 kPa (2.9 psi), X_{ct}⁽¹⁰⁾ - [10 years] 0.13 mm (0.005 in)		Total thickness reduction @20 kPa (2.9 psi), X_t⁽¹⁰⁾ - [10 years] 0.42 mm (0.017 in)	

⁽¹⁾ISO 845 - ⁽²⁾ISO 9052-1 & ISO 7626-5 - ⁽³⁾EN 824 - ⁽⁴⁾EN 12431 - ⁽⁵⁾EN 826 - ⁽⁶⁾EN 1605 - ⁽⁷⁾Δε corresponds to the difference between the relative deformation ε₁ after step A [23 ± 5 °C (73.4 ± 9 °F) / (48 ± 1) h] and ε₂ after step B [(70 ± 1) °C (158 ± 1.8 °F) / (168 ± 1) h] - ⁽⁸⁾EN 14499 - ⁽⁹⁾Cracks longer than 50 mm (1.97 in) weren't observed - ⁽¹⁰⁾EN 1606:2013

Thermal Properties

Temperature range -30°C / 80°C (-22°F / 176°F)	Reaction to fire⁽¹⁾ Class E	Thermal conductivity⁽²⁾ 0.1381 W/m°C (0.080 W/ft°F)	Thermal resistance⁽²⁾ 0.033 m ² °C/W (1.88 ft ² °F/W)
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⁽¹⁾ ISO 11925-2 & EN 13501-1 - ⁽²⁾EN 12664

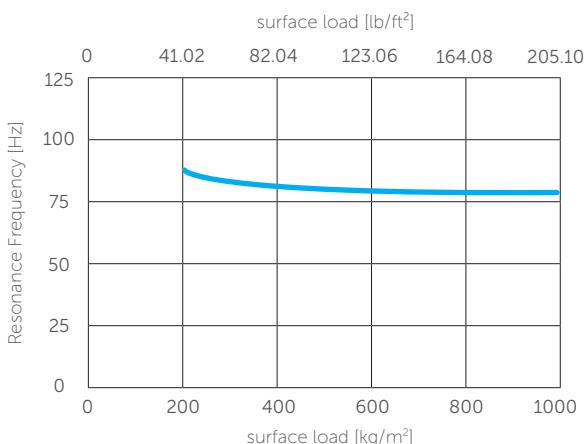
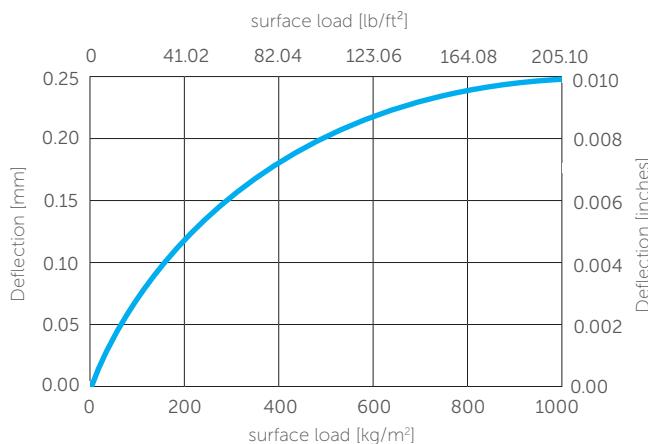
Notes:

The emission of volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC) was assessed according to EN 16516.

The specific organic compounds polycyclic aromatic hydrocarbons (PAH) and Benzo(a)pyrene (B[a]P) were determined according to AfPS GS 2014:01.

The content of nitrosamines was determined according DIK-Method: AA-3.3.14 "Analytical method for the determination of N-nitrosamines, version 1, 2022-01".

Test report available upon request.



ACOUSTICAL RESULTS

Test Setup 1

1. 140 mm (5-1/2") reinforced concrete slab
2. Stravifloor Mat-F4.5_e [4.5 mm (3/16")]
3. Laminate [12 mm (1/2")]

Test Setup 2

1. 140 mm (5-1/2") reinforced concrete slab
2. Stravifloor Mat-F4.5_e [4.5 mm (3/16")]
3. LVT [8.5 mm (5/16")]

Test Setup 3

1. 140 mm (5-1/2") reinforced concrete slab
2. Stravifloor Mat-F4.5_e [4.5 mm (3/16")]
3. Ceramic tiles [9 mm (3/8")]

Setup	$L_{n,w}$ (C _j)	ΔL_w (C _j)	IIC*
Assembly 1	61 (-1)	17 (-10)	48
Assembly 2	59 (1)	19 (-12)	48
Assembly 3	59	19 (-11)	51
Bare Slab	78 (-11)	NA	28

Laboratory report available upon request

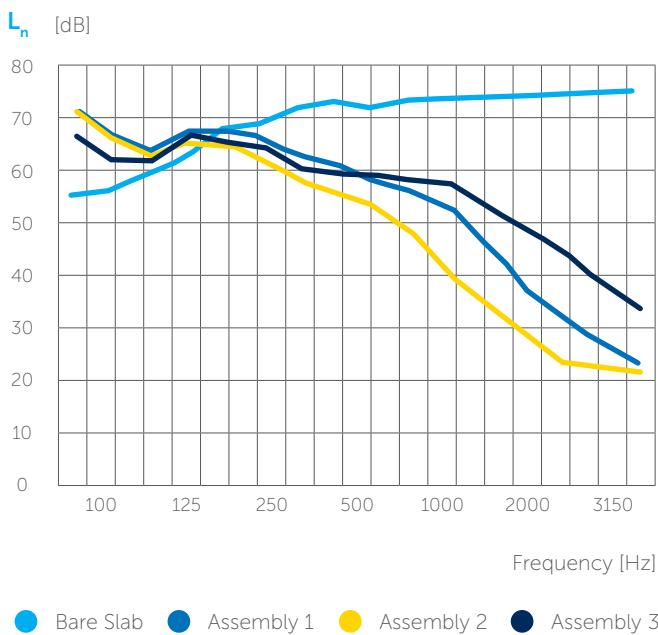
Setup 1: Test Report ACL 337/22

Setup 2: Test Report ACL 336/22

Setup 3: Test Report ACL 338/22

*IIC single figure rating determined in accordance with ASTM E989:1999 by CDM Stravitec, based on ISO measurements.

Frequency [Hz]	L_n [dB]			
	Bare Slab	Assembly 1	Assembly 2	Assembly 3
100	68	71,3	71,3	66,3
125	68	66,4	66,1	61,9
160	68	63,5	63,1	61,9
200	69	67,1	65,1	67,1
250	69	67,6	65,1	65,3
315	70	65,9	62,0	64,3
400	70	62,9	58,0	60,4
500	71	60,9	55,4	59,4
630	71	57,9	53,1	59,3
800	72	56,1	48,1	58,2
1000	72	52,7	39,6	57,3
1250	72	45,7	34,6	53,1
1600	72	37,6	29,4	48,9
2000	72	32,2	24,0	44,6
2500	72	27,5	23,1	38,9
3150	72	24,1	21,9	34,2



Test Setup 4

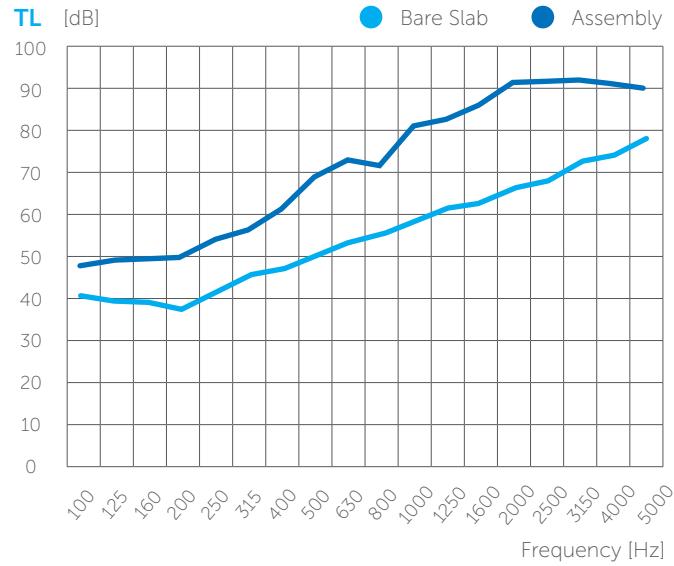
1. 16 mm (5/8") engineered hardwood
2. 4.5 mm (3/16") Stravifloor Mat-F4.5_e underlayment
3. 150 mm (6") precast concrete slab
4. Stravilink Zbar framless ceiling isolators
5. 100 mm (4") Z-channels, spaced at 610 mm (24") on centers
6. 89 mm (3-1/2") glass fibre insulation batts in the cavity
7. 2 layers of 16 mm (5/8") Type X gypsum board

Setup IIC STC

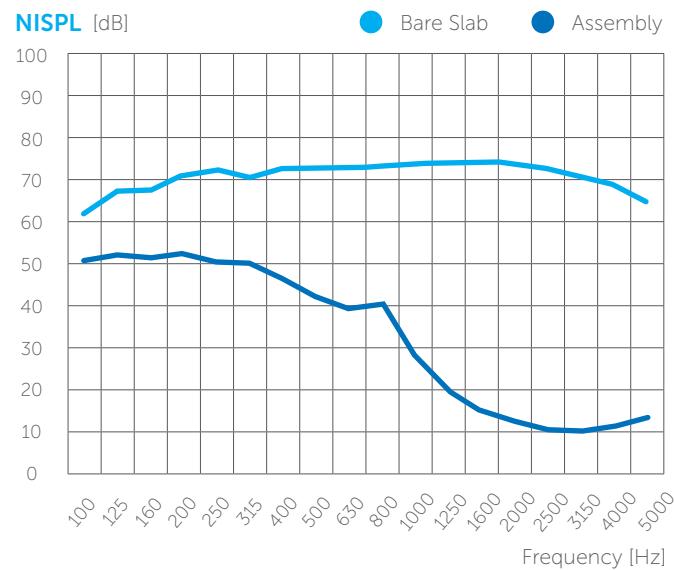
Assembly	66	67
Bare Slab	29	53

Laboratory report available upon request
NRC Test Report A1-021983.2

Frequency [Hz]	Airborne TL [dB]	
	Bare Slab	Assembly
50	39	39
63	39	43
80	41	46
100	40	48
125	39	49
160	39	50
200	37	50
250	41	54
315	45	56
400	47	61
500	50	69
630	53	73
800	55	72
1000	58	81
1250	61	83
1600	63	86
2000	66	91
2500	68	92
3150	72	93
4000	74	91
5000	78	90



Frequency [Hz]	NISPL [dB]	
	Bare Slab	Assembly
50	55	55
63	56	51
80	59	53
100	62	51
125	67	52
160	68	52
200	71	52
250	72	50
315	71	50
400	73	46
500	73	42
630	73	39
800	73	40
1000	74	28
1250	74	19
1600	74	14
2000	74	12
2500	73	10
3150	71	10
4000	69	11
5000	65	13





Other Stravifloor Mat assemblies available on our test data platform Stravi-dB.



DISCLAIMER

The documentation prepared by CDM Stravitec (including but not limited to installation guidelines) contain generally accepted procedures for a successful installation of Stravifloor Mat for structure-borne noise protection (including rolling noise). Any part of the suggestions presented herein, or other documentation, may be followed, modified, or rejected by the owner, engineer, contractor, and/or their representative(s) since they, and not CDM Stravitec, are responsible for planning and execution procedures appropriate to a specific application. CDM Stravitec reserves the right to alter in part or in whole the documentation prepared as well any recommendations included. It is the responsibility of the Client (direct or indirect) to ensure they have always the latest documentation and to that effect CDM Stravitec encourage contact with its local representatives to review any project specific modifications to the suggested guidelines prior to the start of the installation on site. This documentation prepared by CDM Stravitec contains loading information for the Stravifloor Mat-F4.5_e for acoustically structure-borne noise protection (including rolling noise). It should be noted that any loading information contained herein represent the loading information for the Stravifloor Mat-F4.5_e only as supplied to the Client. This information does not in any way represent an indication and/ or validation of the load capacity of any other elements not supplied by CDM Stravitec. This information is accurate to the best of our knowledge at the time of issue. Information, data and recommendations provided are based on industry accepted testing and prior product usage. It is intended as descriptive of the general capabilities and performance of our products and does not endorse applicability for any particular project. We reserve the right to change products, performance, and data without notice. This document replaces all information supplied prior to the publication hereof.

