



ALADIN

RESILIENT SOUNDPROOFING PROFILE

TESTED, SMART AND ECONOMICAL

Despite a reduced thickness of use, the soundproofing profile ALADIN STRIPE offers an effective reduction of noise from footsteps, verified and approved in accordance with the standard EN ISO 10848 both by the certification body Holzforschung Austria, and by the Industrial Research Centre of the University of Bologna.

It is precut to obtain four different widths with only two versions: ALADIN STRIPE SOFT in compact extruded EPDM and ALADIN STRIPE EXTRA SOFT in expanded EPDM.

The product has been also tested for fire performance, achieving class E.



HIGH PERFORMANCE

Soundproofing up to 4 dB in accordance with EN ISO 140-7, thanks to the innovative composition of the mixture; reduced application thickness.

PRACTICAL

Pre-cut to obtain 4 different widths with only two versions. Dry installation with mechanical fastening.

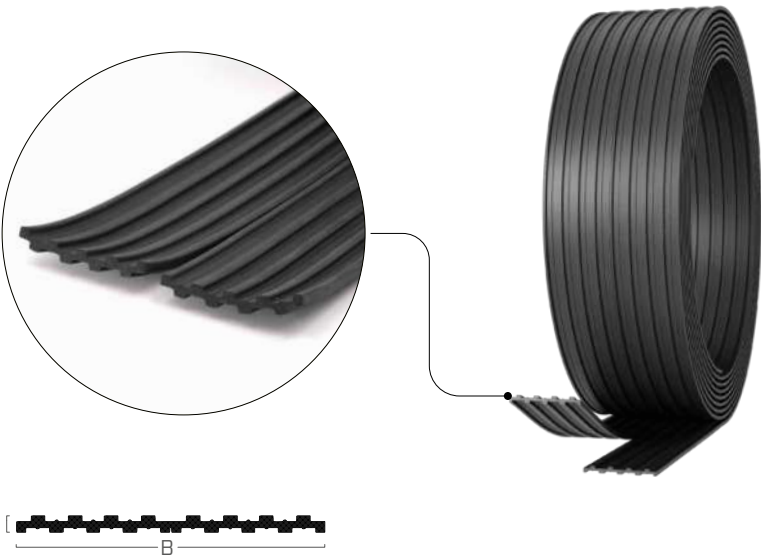
RELIABLE

Extruded and expanded EPDM blend to optimise sound absorption. It also offers high chemical stability and is VOC-free.

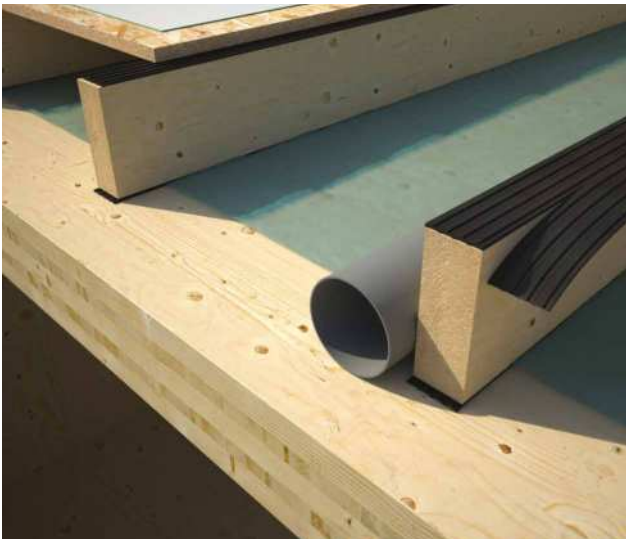
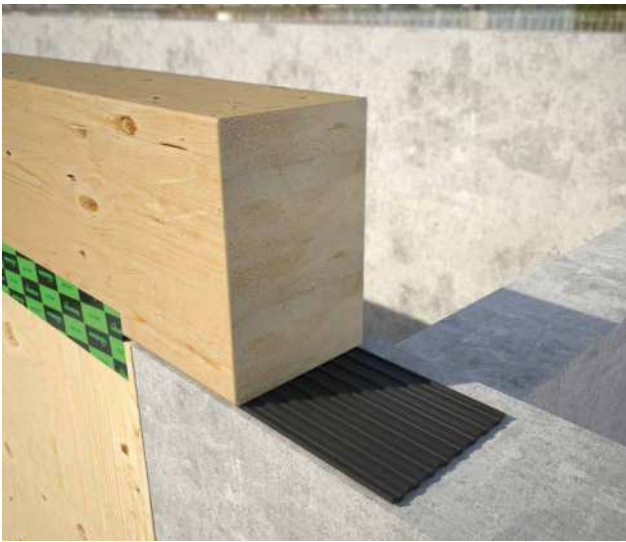
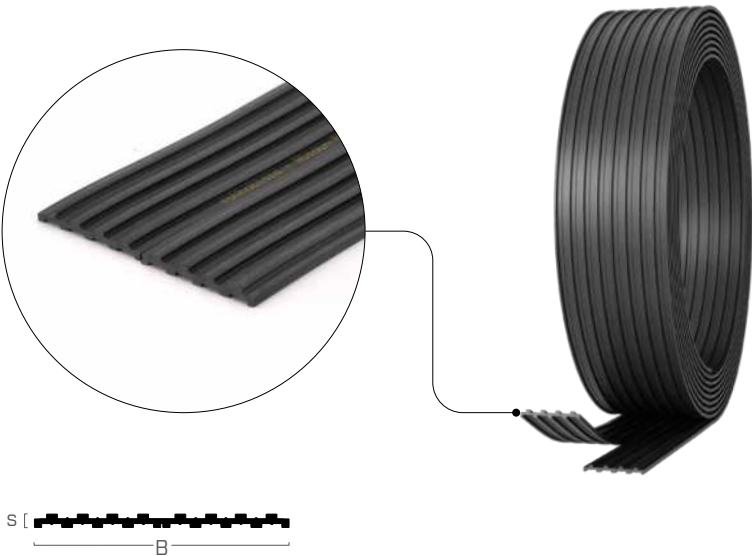
CODES AND DIMENSIONS

CODE	version	B [mm]	L [m]	s [mm]	B [in]	L [ft]	s [in]	pcs
ALADIN115	EXTRA SOFT	115	50	7	4 1/2	164	9/32	1
ALADIN95	SOFT	95	50	5	3 3/4	164	3/16	1

ALADIN EXTRA SOFT



ALADIN SOFT



ALADIN EXTRA SOFT

TABLE OF USE⁽¹⁾

CODE	B		load for acoustic optimisation ⁽²⁾ [kN/m] [lbf/ft]				compression for acoustic optimisation ⁽²⁾ [N/mm ²] [psi]		reduction [mm] [mil]	
	[mm]	[in]	from		a		from	a	from	a
ALADIN115	115	4 1/2	4	2969	18	13317	0,035	0,157	0,7	2
	57,5 (divided)	2 1/4	2	1484	9	6658	5.1	22.8	28	79

⁽¹⁾ See the manual or use MyProject to view transmissibility and attenuation graphs.

⁽²⁾ Resilient profiles must be properly loaded in order to isolate medium/low frequency vibrations transmitted structurally. It is advisable to assess the load according to the operating conditions because the building must be acoustically insulated under everyday load conditions (add the value of the permanent load to 50% of the characteristic value of the incidental load $Q_{linear} = q_{gk} + 0.5 q_{vk}$).

TECHNICAL DATA

Properties	standard	value
Acoustic improvement $\Delta L'_{nT,w}$ ⁽³⁾	ISO 10848	4 dB
Dynamic stiffness s' (airtight condition) ⁽⁴⁾	UNI 29052	76 MN/m ³
Dynamic stiffness s' (non-airtight condition) ⁽⁴⁾	UNI 29052	23 MN/m ³
Density	ASTM D 297	0,50 g/cm ³
Compression set 50% (22h, 23°C)	EN ISO 815	≤ 25%
Compression set 50% (22h, 40°C)	EN ISO 815	≤ 35%
Water absorption 48h	-	3%
Reaction to fire	EN 13501-1	class E
Max processing temperature	-	100°C

⁽³⁾ See the manual for more information on configuration.

⁽⁴⁾ The standard requires for measurement with loads between 0.4 and 4 kPa and not with the product operating load. The contribution of air is not calculated because the product is extremely impermeable to air (extremely high flow resistance figures).

ALADIN SOFT

TABLE OF USE⁽¹⁾

CODE	B		load for acoustic optimisation ⁽²⁾ [kN/m] [lbf/ft]				compression for acoustic optimisation ⁽²⁾ [N/mm ²] [psi]		reduction [mm] [mil]	
	[mm]	[in]	from		a		from	a	from	a
ALADIN95	95	3 3/4	18	13243	30	22142	0,189	0,316	0,5	1,5
	47,5 (divided)		9	6621	15	11071	27.4	45.8	20	59

⁽¹⁾ See the manual or use MyProject to view transmissibility and attenuation graphs.

⁽²⁾ Resilient profiles must be properly loaded in order to isolate medium/low frequency vibrations transmitted structurally. It is advisable to assess the load according to the operating conditions because the building must be acoustically insulated under everyday load conditions (add the value of the permanent load to 50% of the characteristic value of the incidental load $Q_{linear} = q_{gk} + 0.5 q_{vk}$).

TECHNICAL DATA

Properties	standard	value
Acoustic improvement $\Delta L'_{nT,w}$ ⁽³⁾	ISO 10848	3 dB
Dynamic stiffness s' (airtight condition) ⁽⁴⁾	UNI 29052	221 MN/m ³
Dynamic stiffness s' (non-airtight condition) ⁽⁴⁾	UNI 29052	115 MN/m ³
Density	ASTM D 297	1,1 g/cm ³
Compression set 50% (22h, 70°C)	EN ISO 815	50%
Tensile strength	EN ISO 37	≥ 9 N/mm ²
Elongation at failure	EN ISO 37	≥ 500%
Water absorption 48h	-	< 1%
Reaction to fire	EN 13501-1	class E
Max processing temperature	-	100°C

⁽³⁾ See the manual for more information on configuration.

⁽⁴⁾ The standard requires for measurement with loads between 0.4 and 4 kPa and not with the product operating load. The contribution of air is not calculated because the product is extremely impermeable to air (extremely high flow resistance figures).

INTEGRATED DESIGN - FLANKSOUND PROJECT

Rothoblaas has promoted research projects aimed at measuring the K_{ij} vibration reduction index for a variety of CLT panel joints, with the dual objective of providing specific experimental data for the acoustic design and contributing to the development of calculation methods.

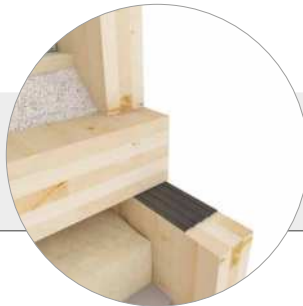
- influence of CLT type and thickness
- influence of type and number of screws
- influence of type and number of angle brackets and connectors
- effectiveness of ALADIN

K_{ij} measured according to ISO EN 10848

MEASUREMENTS ON SITE

In order to know the behaviour of its products inside buildings, Rothoblaas also invests in on-site measurement campaigns. The effectiveness of ALADIN has resulted in highly satisfactory impact noise levels.

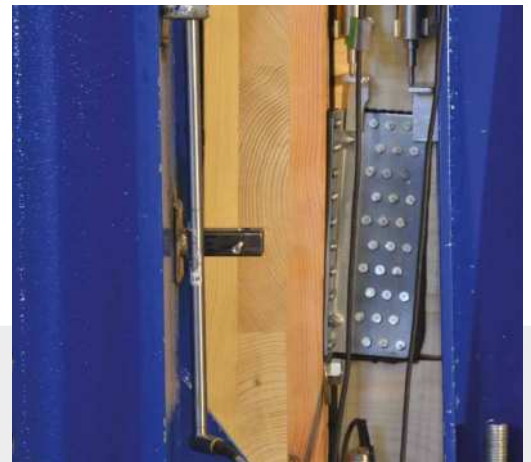
$$L'_{nT,w} = 34 \text{ dB}$$
$$NIRS_{ASTM} = 75$$



STATICS AND ACOUSTICS

As part of the Seismic Rev project, in cooperation with the University of Trento and CNR IVALSA, preliminary assessment was done of the mechanical behaviour of the TITAN when paired with ALADIN.

Experimental data on the static performance of a timber-to-steel connection with ALADIN interposed



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