

AECOSILENT OVER

Registered Product
Patent n.
00013333625

RESILIENT MATERIAL WITH HIGH ACOUSTIC PERFORMANCES MADE OF RECYCLED FLEXIBLE POLYURETHANE FOR IMPACT SOUND NOISE INSULATION.

Insulation system against impact sound noises made up of one layer of recycled flexible polyurethane agglomerate (90 kg/m³ density) and a second one made up of natural and synthetic elastomeric compounds, coming from the recycling of E.L.T. (end of life tyres) bound by mass-polymerized polyurethane ISOLNOISE AE (750 kg/m³ density).

ACOUSTIC PERFORMANCES

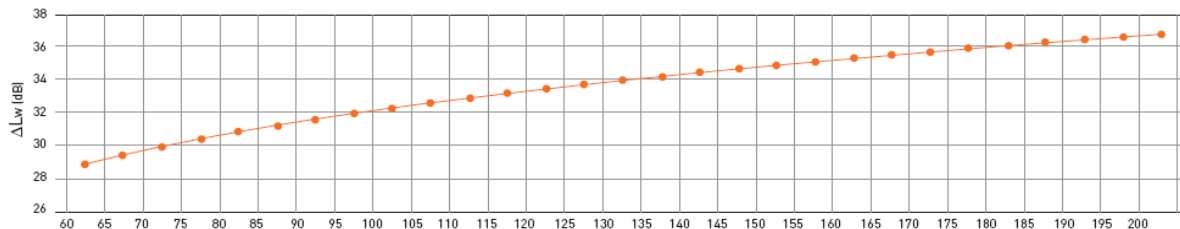
DESCRIPTION	SYMBOL	M.U.	VALUE	LAW REFERENCES	NOTES
Absolute dynamic rigidity	(s')	MN/m ³	11	UNI EN 29052-1	Cert.n° AE-086005-MG-B-2010
Resonance frequency	(f ₀)	Hz	37	UNI EN 29052-1	Cert.n° AE-086005-MG-B-2010
Air flow resistance		kPa*s/m ²	108	UNI EN 29053	Cert.n° 439.11UN0010/11
Impact sound noise attenuation level	(ΔL _w)	dB	33	UNI EN 12354-2	Screed weight 115 Kg/m ²

ATTENUATION RATING INDEX OF IMPACT SOUND NOISE PRESSURE LEVEL ACCORDING TO UNI EN 12354-2

m'	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200
kg/m ²																													
ΔL _w dB	29,1	29,6	30,1	30,5	30,9	31,3	31,7	32,0	32,4	32,7	33,0	33,3	33,6	33,8	34,1	34,3	34,6	34,8	35,0	35,2	35,4	35,6	35,8	36,0	36,2	36,4	36,6	36,7	36,9

m' : Lodging screed weight

ΔL_w VARIATION IN RELATION TO SCREED WEIGHT



Screed surface mass m' (kg/m²)

THERMAL PERFORMANCES

DESCRIPTION	SYMBOL	M.U.	VALUE	LAW REFERENCES	NOTES
Thermal conductivity	(λ)	W/mK	0,0475	UNI EN 12667:2002	Cert.n° 007-10-the TR
Thermal resistance	(R)	m² K/W	0,168	UNI EN 12667:2002	Calculated value
Thermal transmission	(U)	W/m² K	5,952	UNI EN 12667:2002	Calculated value

PHYSICAL-MECHANICAL PERFORMANCES

DESCRIPTION	M.U.	VALUE	TOLERANCES	LAW REFERENCES
Rubber density	Kg/m³	750	± 7 %	
Rubber thickness	mm	3	± 10 %	
Polyurethane density	Kg/m³	90	± 20 %	DIN EN ISO 845 AS 2282.3
Polyurethane thickness	mm	5	± 10 %	
Total thickness	mm	8	± 10 %	

DESCRIPTION	M.U.	RUBBER VALUE	POLYURETHANE VALUE	LAW REFERENCES
Resistance to compression at 40 %	KPa		Min 10,0	PFU - PU DIN EN ISO 3386/1
Elongation percentage at break	%	27	Min 60	DIN EN ISO 1798 AS 2282.6
Heat resistance	°C	Up to + 80	Up to + 120	
Cold resistance	°C	Up to -30	Up to -40	
Reaction to fire class		B2		DIN 4102
SHORE A hardness		50		

DESCRIPTION	SYMBOL	M.U.	VALUE	LAW REFERENCES	NOTES
Strain to compression	(d _L)	mm	8,4	UNI EN 12431	Cert.n° 439.11UN0050/11
Strain to compression	(d _F)	mm	7,8	UNI EN 12431	Cert.n° 439.11UN0050/11
Strain to compression	(d _B)	mm	7,3	UNI EN 12431	Cert.n° 439.11UN0050/11

CHEMICAL PERFORMANCES

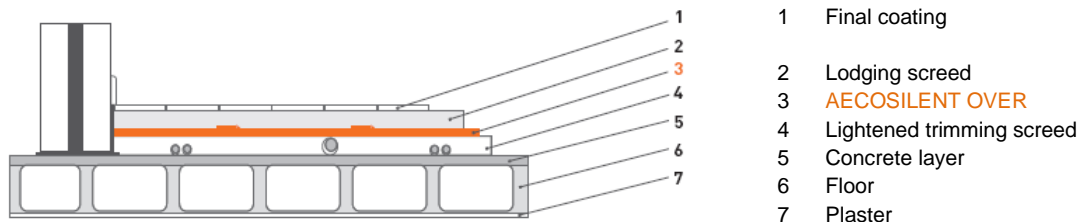
CHARACTERISTIC	PERFORMANCES
Chemical interactions	Highly resistant to acids and alkaline detergents, rot proof, retains its characteristics unchanged over time
Electrostatic	Does not accumulate static charge and prevent interaction between materials
Environmental sustainability	100 % recyclable

SPECIFICATIONS

Acoustic insulation from impact sound noises obtained by carrying out a floating floor over a suitable de-coupling layer made up of an elastic-resilient material after the realization of the lightened levelling screed. The elastic element at issue is made up of an elastomeric granules mat bound by mass-polymerized polyurethane resins of 750 kg/m³ density, 3 mm thickness, coupled with a recycled flexible polyurethane agglomerate of 90 kg/m³ density, 5 mm thickness, with an attenuation rating index of the impact sound pressure level of $L_w = 33$ dB and absolute dynamic rigidity equal to 11 MN/m³.

The AECOSILENT OVER system by VALLI ZABBAN, thanks to the edges with overlapping selvage, does not require any further jointing elements between the rolls, if these are carefully laid perfectly adjacent to one another; it only remains necessary the perimeter connection with the vertical partitions, using ISOLBAEND V, for the construction of the floating floor tank.

APPLICATION – FLOOR



APPLICATION TYPE

After the fixtures installation and the levelling with lightened screed, before the lodging screed.

APPLICATION METHOD

- 1 Decouple at the base all the vertical partitions (walls) with ISOLBAEND cut wall band
- 2 Decouple from the walls the lightened screed with ISOLBAEND V band
- 3 Lay the AECOSILENT OVER acoustic insulator over the lightened screed all over the floor closer as much as possible to the walls. Seal the conjunctions between mats overlapping the selvages of the rolls edges.
- 4 Carry out the complete decoupling of the floating screed from the perimeter vertical partitions applying the ISOLBAEND V self-adhesive band between the AECOSILENT and the wall making all the turn ups.

DIMENSIONS AND PACKAGING

SIZE	M.U.	VALUE
Thickness	mm	8
Roll height	m	1,05
Roll length	m	10
Weight per m ²	Kg/m ²	2.70
Number of rolls per pallet	piece	12
Pallet total surface	m ²	126
Pallet dimension	cm	100x120x105+10

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