

# AECOSILENT UNDER

Registered Product  
Patent n. 00013333625

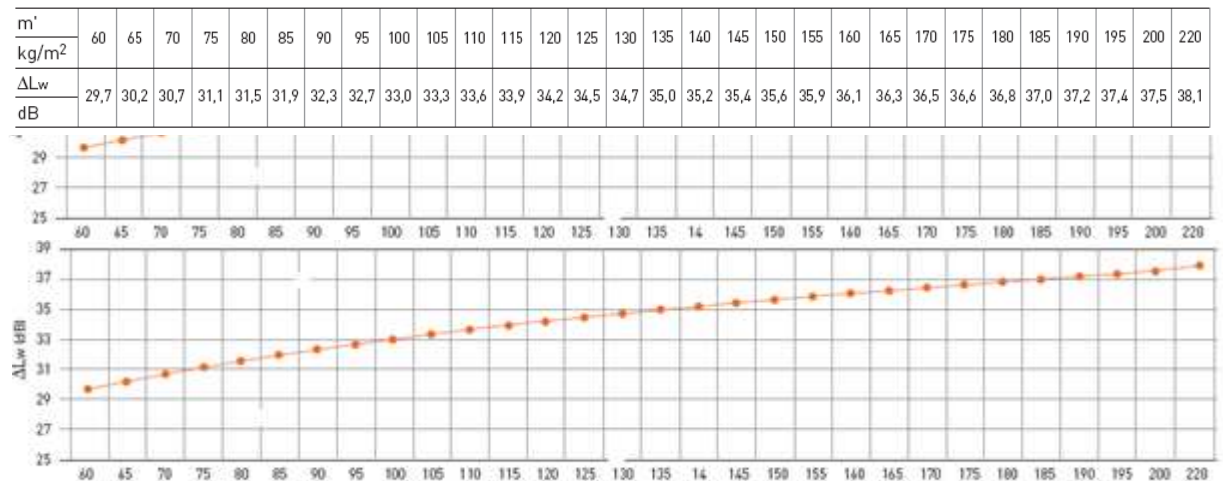
**RESILIENT MATERIAL WITH HIGH ACOUSTIC PERFORMANCES MADE OF RECYCLED FLEXIBLE POLYURETHANE FOR IMPACT SOUND NOISE INSULATION**

Insulation system against impact sound noise made up of one layer of recycled flexible polyurethane agglomerate (90 kg/m<sup>3</sup> 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 AECOSILENT UNDER (750 kg/m<sup>3</sup> density  $\pm$  7 %)

## ACOUSTIC PERFORMANCES

DESCRIPTION	SYMBOL	M.U.	VALUE	LAW REFERENCES	NOTES
Absolute dynamic rigidity	(s')	MN/m <sup>3</sup>	10	UNI EN 29052-1	Cert. n° AE-086004-MG-B-2010
Resonance frequency	(f <sub>0</sub> )	Hz	35	UNI EN 29052-1	Cert. n° AE-086004-MG-B-2010
Air flow resistance		kPa*s/m <sup>2</sup>	108	UNI EN 29053	Cert. n° 439.11UN0010/11
Impact sound noise attenuation level	( $\Delta L_w$ )	dB	34	UNI EN 12354-2	Screed weight 115 Kg/m <sup>2</sup>

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



Screed surface mass m' (kg/m<sup>2</sup>)



### THERMAL PERFORMANCES

DESCRIPTION	SYMBOL	M.U.	VALUE	LAW REFERENCES	NOTES
Thermal conductivity	(λ)	W/mK	0,0527	UNI EN 12667:2002	Cert. n° 006-10-the TR
Thermal resistance	(R)	m <sup>2</sup> K/W	0,209	UNI EN 12667:2002	Calculated value
Thermal transmission	(U)	W/m <sup>2</sup> K	4,784	UNI EN 12667:2002	Calculated value

### PHYSICAL-MECHANICAL PERFORMANCES

DESCRIPTION	M.U.	VALUE	TOLERANCES	LAW REFERENCES
Rubber density	Kg/m <sup>3</sup>	750	± 7 %	
Rubber thickness	mm	6	± 10 %	
Polyurethane density	Kg/m <sup>3</sup>	90	± 20 %	DIN EN ISO 845 AS 2282.3
Polyurethane thickness	mm	5	± 10 %	
Overall thickness	mm	11	± 10 %	

DESCRIPTION	M.U.	RUBBER VALUE	POLYURETHANE VALUE	LAW REFERENCES
Resistance to compression at 40 %	KPa		Min 10,0	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	
Class fire resistance		B2		DIN 4102
SHORE A hardness		50		

DESCRIPTION	SYMBOL	M.U.	VALUE	LAW REFERENCES	NOTES
Strain to compression	(d <sub>L</sub> )	mm	11,3	UNI EN 12431	Cert. n° 440.11UN0050/11
Strain to compression	(d <sub>F</sub> )	mm	10,8	UNI EN 12431	Cert. n° 440.11UN0050/11
Strain to compression	(d <sub>B</sub> )	mm	10,3	UNI EN 12431	Cert. n° 440.11UN0050/11



## CHEMICAL PERFORMANCES

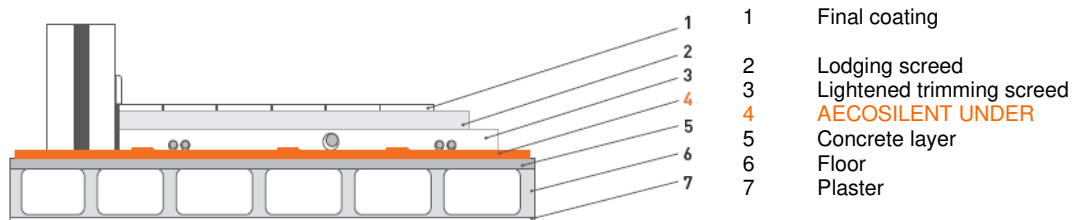
CHARACTERISTIC	PERFORMANCES
Chemical interactions	Highly resistant to acids and alkaline detergents, rot proof, retains its characteristics unchanged over time
Electrostatic	Does not accumulate static charge and prevent interaction between materials
Environmental sustainability	100 % recyclable

## SPECIFICATIONS

Acoustic insulation from impact sound noise obtained by carrying out a floating floor over a suitable de coupling layer made up of an elastic-resilient material before the realization of 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/m<sup>3</sup> density, 6 mm thickness, coupled with a recycled flexible polyurethane agglomerate of 90 kg/m<sup>3</sup> density, 5 mm thickness, with an attenuation rating index of impact sound pressure level of Lw = 33 dB and absolute dynamic rigidity equal to 10 MN/m<sup>3</sup>.

The AECOSILENT UNDER system by VALLI ZABBAN, thanks to the margins with overlapping selvedge, 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 complete decoupling from the vertical partitions, using ISOLBAEND V, for the construction of the floating floor tank.

## APPLICATION - FLOOR



## APPLICATION TYPE

On the bare floor before fitting the plumbing and wiring fixtures

### APPLICATION METHOD

1. Over the bare floor, after having built the external walls, before the internal walls, lay the acoustic insulator AECOSILENT all over the floor.
2. Seal the junctions between the mats by overlapping the selvedge of the rolls edges and tape with suitable tape.
3. Carry out the internal vertical partition (walls) directly on the elastic panel.
4. Carry out the plumbing and wiring systems directly on the elastic panel.
5. Carry out the complete decoupling of the external vertical partition with ISOLBAEND V band making all the overlaps.



### DIMENSIONS AND PACKAGING

SIZE	M.U.	VALUE
Thickness	mm	1.1
Roll height	m	1
Roll length	m	8
Weight per m <sup>2</sup>	Kg/m <sup>2</sup>	2,2
Rolls number per pallet	pc	12
Total pallet surface	m <sup>2</sup>	96
Pallet dimension	cm	100x120x100+10

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