SINCE 1928
Valli Zabban
RUBBER TECHNOLOGIES

AETOLIA

AEUREKA 40

THE RESILIENT PLYWOOD PANEL MADE UP OF HIGH DENSITY RUBBER AND RECYCLED POLYURETHANE WITH VERY HIGH SOUNDPROOFING PERFORMANCES

Soundproofing and resilient ecological plywood mat, suitable for acoustic insulation of both airborne and impact sound noise, made of one sound impeding layer made up of high density (1150 kg/m^3 ± 7 %) natural and synthetic recycled elastomers of 18 mm thickness coupled with a 10 mm thick layer of recycled polyurethane agglomerate. Besides having very good elastic properties and therefore suitable to be effectively used for floating floor systems, the product has been purposely produced to give very high soundproofing power to light structures, either horizontal and vertical partitions, which do not have themselves such characteristics to guarantee the requested requirement for insulation to airborne noise, as for example wooden floors.
The panels are produced with an advanced pressing technology which confers the product very good mechanical – physical and acoustic characteristics. AEUREKA 40 can be walked on, has very high mechanical resistances, very good shock absorption and good “elastic memory”; it is also resistant to abrasions.

ACOUSTIC PERFORMANCES

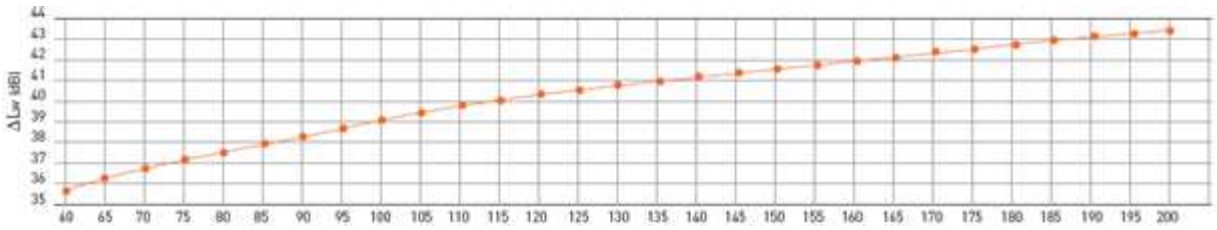
DESCRIPTION	SYMBOL	M.U.	VALUE	NORMS	NOTES
Soundproofing power	(R_w)	dB	40	UNI EN ISO 140-3 UNI EN ISO 717-1	Cert.n° 222997
Absolute dynamic rigidity	(s’)	MN/m^3	4	UNI EN 29052-1	Cert.n° AE-107001-MG
Resonance frequency	(f_0)	Hz	23	UNI EN 29052-1	Cert.n° AE-107001-MG
Impact sound noise attenuation level	(ΔL_w)	dB	40	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’ kg/m^2	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
ΔLw dB	35,6	36,2	36,6	37,1	37,5	37,9	38,3	38,6	39,0	39,3	39,6	39,9	40,2	40,4	40,7	40,9	41,2	41,4	41,6	41,8	42,0	42,2	42,4	42,6	42,8	43,0	43,2	43,3	43,5

m’ : Lodging screed weight

Δ_{LW} VARIATION IN RELATION TO SCREED WEIGHT



Screed surface mass....

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TONON GROUP building inspiration

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THERMAL PERFORMANCES

DESCRIPTION	SYMBOL	M.U.	VALUE	NORMS	NOTES
Thermal Conductivity	(λ)	W/mK	0,0726	UNI EN 12667:2002	Cert.n° 021-09-the TR
Thermal Resistance	(R)	m^2 K/W	0,386	UNI EN 12667:2002	Calculated value
Thermal Transmission	(U)	W/m^2 K	2,59	UNI EN 12667:2002	Calculated value

PHYSICAL-MECHANICAL PERFORMANCES

DESCRIPTION	M.U.	VALUE	TOLERANCES	NORMS
Rubber density	Kg/m^3	1150	± 7 %	
Rubber thickness	mm	18	± 10 %	
Polyurethane density	Kg/m^3	90	± 20 %	DIN EN ISO 845 AS 2282.3
Polyurethane thickness	mm	10	± 10 %	
Total thickness	mm	28	± 10 %	

DESCRIPTION	M.U.	RUBBER VALUE	POLYURETHANE VALUE	NORMS rubber - polyurethane	
Resistance to 40% compression	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		
Fire rating		B2		DIN 4102	
SHORE A hardness		50			

CHEMICAL PERFORMANCES

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

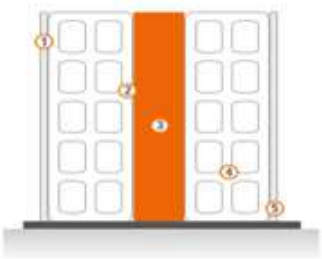
SPECIFICATION

Effective acoustic insulation to airborne (R'_w) and impact sound noises ($L'_{n,w}$) of light structures, either vertical and horizontal, obtained with a sound impeding/resilient system resulting from the coupling of two different VALLI ZABBAN products: a sound impeding panel made up of high density 1150 kg/m^3 recycled elastomeric and a panel made up of recycled polyurethane agglomerate of 90 kg/m^3 density but with higher elastic properties. AEUREKA 40 is made up of a single layer of 18 mm thick elastomers coupled with a single layer of 10 mm thick polyurethane agglomerate. The AEUREKA 40 dynamic rigidity is equal to 4 MN/m^3, whereas the laboratory certified soundproofing power evaluation index R_w of the panel alone is equal to 40 dB. Thanks to such performances, using the AEUREKA 40 system by VALLI ZABBAN an effective acoustic insulation to airborne and impact sound noises on light structures will be obtained.

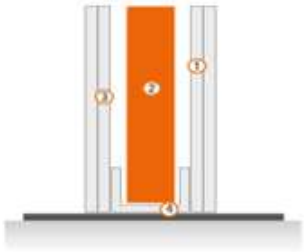
APPLICATION – FLOOR

1) Finishing
2) Lightened trimming screed
3) AEUREKA 40
4) Concrete layer
5) Wood double planking
6) Beams

APPLICATION - WALL



1) 1,5 cm Plaster
2) Brick
3) AEUREKA 40
4) Brick
5) 1,5 cm. Plaster



1) 15 mm Double plasterboard panel
2) AEUREKA 40
3) 15 mm Double plasterboard panel
4) Metallic structure

APPLICATION TYPE - FLOOR

APPLICATION METHOD

Lay AEUREKA before or after the fixtures bringing the different panels carefully close together and tape along the junctions.

N.B. In case of application underneath the fixtures, make those ones and the walls over the panel

APPLICATION TYPE - WALL

APPLICATION METHOD

It is advised to use the panel both in the inside of traditional double wall and in these built with dry system, in both cases, the application of the panel will be done with a first adhesive layer with single polyurethane component glue to finish all with a mechanical fixing.

DIMENSIONS AND PACKAGING

SIZE	M.U.	VALUE
Panel Thickness	mm	28
Panel dimensions	m	1x1.2
Panel surface	m^2	1.2
Weight per m^2	Kg/m^2	21.6
Number of panels per pallet	piece	40
Total area per pallet	m^2	48
Pallet dimension	cm	100x120x120+10

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