

REAPOR®

eco-friendly sound absorber for challenging environments

Reapor® acoustic panels are high-performance noise absorbers that look like cut stone.

It is constructed from small aerated granules made from recycled glass. The granules are fused together through a patented high-temperature sintering process to form a hard, lightweight, fibre-free, non-combustible stone-like panel that can be used indoors and outdoors. The unique material is highly porous, absorbing noise both between and within the granules.

Reapor® panels are simple and easy to install using recommended adhesives (refer to the Reapor® Installation Guide for details). The panels can be cut, drilled and routed using standard woodworking tools, enabling easy installation around obstacles.

The panels are suitable for use outdoors. Wet panels will drain freely and dry in the sun; however, this may result in efflorescence where crystalline salts are deposited on the surface of the panel. Efflorescence will not affect acoustic performance. If efflorescence does occur, the salts may be removed using commercial efflorescence cleaners. *(Please refer to the Reapor® Installation Guide for more information).*

Reapor® panels can be painted or rendered after installation. Coatings may be water-based and suitable for use on ceramic, concrete, or masonry surfaces. Once coated material properties may differ from those indicated in this TDS and the Installation Guide. It is the responsibility of the purchaser and/or installer to confirm installation methods and performance requirements with the relevant acoustic, fire, and mechanical engineers prior to installation.

VOC STATEMENT

Reapor® does not contain any Volatile Organic Compounds (VOC) when evaluated to the differing definitions as applied under the Australia National Pollutant Inventory, the EU Council Directive 1999/13/EC or the USA EPA Regulation 40CFR 51.100(s). This product can be classed as low VOC-emitting. The material emissions are less than the threshold of 0.5 mg/m²/hr as specified in Green Building Council of Australia 'Green Star' credit IEQ-13. Formaldehyde compound emission rate is less than the threshold of 0.1 mg/m²/hr as specified in 'Green Star' credit IEQ-14.

SPECIFICATIONS

Colour	Light grey
Available	50 x 625 x 625 mm
	Custom sizes available depending on MOQ

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applications

- Rail and motorway tunnels, vent shafts and noise barriers
- Outdoor cafes, bars and restaurants
- Interior walls and ceilings of offices, retail spaces, hospitals, schools and aged care facilities
- Fire exits and stairwells
- HVAC and genset plant rooms
- Industrial noise enclosures
- Shooting ranges

features

- Resists weather, water and UV exposure over an extended period
- Non-combustible
- Exceptionally high NRC of 0.95 (50 mm thick panel)
- Easy to cut, drill and rout using standard woodworking tools
- Natural 'stone-like' appearance to suit indoor and outdoor designs
- Made from recycled glass
- Lightweight
- Fibre free



PRODUCT SPECIFICATIONS

Product name	Thickness (mm)	Panel size			Density (kg/m³)
		Length (mm)	Width (mm)	Approximate weight (kg)	
Reapor® 50/625625	50	625	625	5.3	270

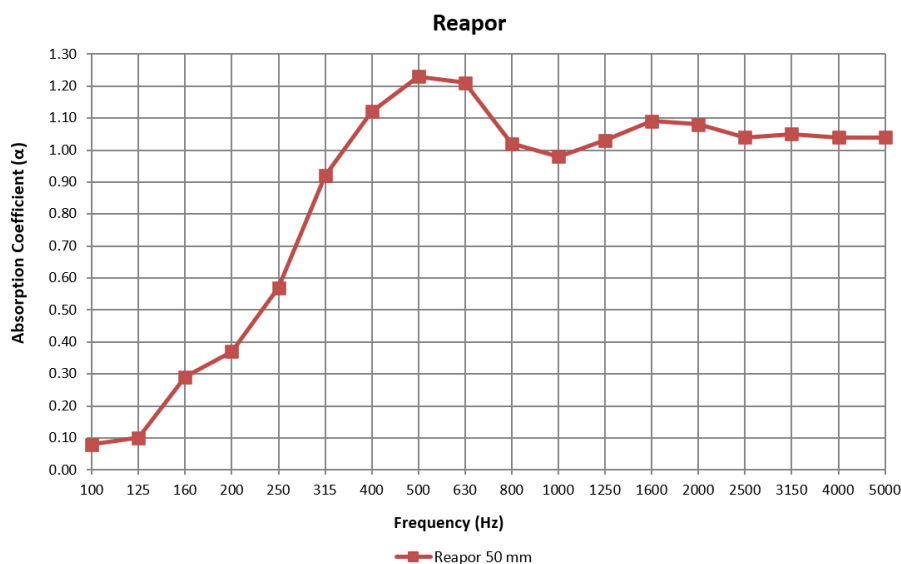
Tolerances: Dimensions ± 1 mm, Density: $\pm 10\%$. 25 mm thick Reapor® does not feature chamfered edges.

MATERIAL PROPERTIES

Test method	Property	Report	Results	
DIN 196-1	Compressive strength	B 12.16.103.01	1.46 N/mm² ($\pm 10\%$)	
	Flexural strength		0.53 N/mm² ($\pm 10\%$)	
DIN 1607	Tensile strength		0.14 N/mm² ($\pm 10\%$)	
DIN 1048	Dynamic modulus of elasticity		833 N/mm² ($\pm 10\%$)	
DIN 52612	Thermal conductivity	1254P41/P	0.077 W/mK	
AS/NZS 3000	Electrical conductivity	9765	Non-conductive	
EN 13501-1	Fire classification of construction products and building materials	KB 3.1/11-121-3	Non-combustible	
DIN 4102	Fire resistance	16-900 9171 002-1		
AS 1530.1 / ISO 1182	Fire resistance	FNC11639		
AS 1530.3	Method for fire tests on building materials, components and structures	16-000832	Ignitability	0
			Spread of flame	0
			Heat evolved	0
			Smoke developed	1
ISO 5660 / AS/NZS 3837	Building code compliance	FH 5357-01-2	NCC	1
			NZBC	1-S
ASTM D5116	Total volatile organic compound emission rate	CV130829	0.026 mg/m²/hr	
	Formaldehyde compound emission rate		<0.005 mg/m²/hr	
EN 1793-1	Intrinsic sound absorption performance of roadside noise reducing devices	P-BA 235/2020	DL _a 11 dB Category A3	
Pyrotek Pull Test Method	Adhesion of Reapor to concrete substrate using recommended fixing methods and adhesive	13121BDA	> 3.7 kN/m² (> 380 kgf/m²)	

ACOUSTIC PERFORMANCE

Frequency (Hz)	Reapor 50 mm
100	0.08
125	0.10
160	0.29
200	0.37
250	0.57
315	0.92
400	1.12
500	1.23
630	1.21
800	1.02
1000	0.98
1250	1.03
1600	1.09
2000	1.08
2500	1.04
3150	1.05
4000	1.04
5000	1.04
NRC	0.95
SAA	0.97
α_w	0.90



Tested to ISO 354:2003 at Vienna Experimental and Research Institute (Austria) & CSIRO (Australia)
Report Numbers: MA 39-VFA 2007-1277.01, AC186-01-1 & P-BA 195/2017e

For further information
and contact details,
please visit our website
pyroteknc.com

Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic, mechanical and fire engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights.
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