# 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 routered 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).*

### 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/m$^2$/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/m$^2$/hr as specified in 'Green Star' credit IEQ-14.

### SPECIFICATIONS

| | |
|---|---|
| Colour | Light grey |
| Available | 50 x 625 x 625 mm<br>50 x 625 x 1250 mm |
| | 25 x 625 x 625 mm<br>25 x 625 x 1200 mm<br>63 x 625 x 625 mm<br>*(25 mm and 63 mm sold FCL only)* |
| | Custom sizes available depending on MOQ |

*25 mm thick Reapor® does not feature chamfered edges.*



## 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® 25/625625 | 25 | 625 | 625 | 2.6 | 270 |
| Reapor® 25/1200625 | | 1200 | | 5.1 | |
| Reapor® 50/625625 | 50 | 625 | | 5.3 | |
| Reapor® 50/1250625 | | 1250 | | 10.5 | |
| Reapor® 63/625625 | 63 | 625 | | 6.6 | |

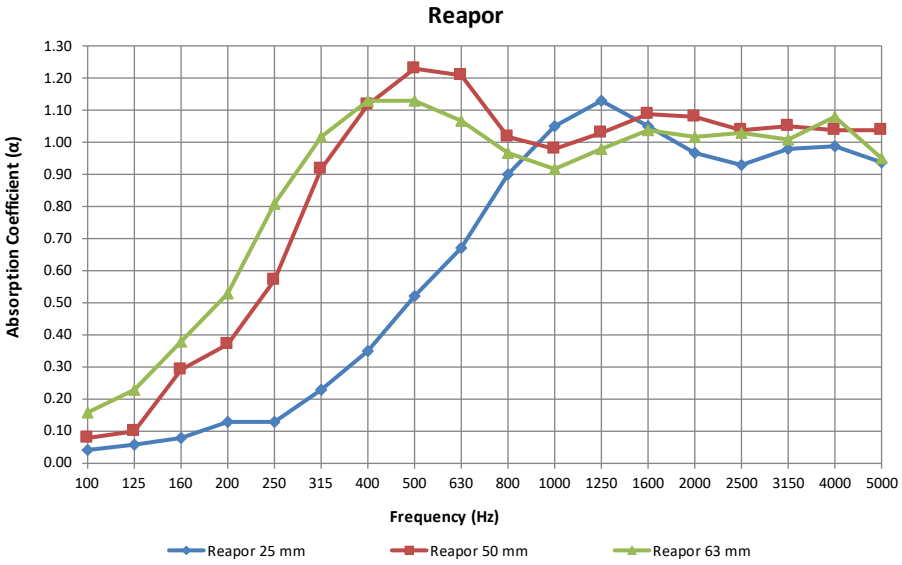
*Tolerances: Dimensions ±1 mm, Density: ±10%. 25 mm thick Reapor® does not feature chamfered edges.*

## MATERIAL PROPERTIES

| Test method | Property | Report | Results | |
|---|---|---|---|---|
| DIN 196-1 | Compressive strength | B 12.16.103.01 | 1.46 N/mm² (±10%) | |
| | Flexural strength | | 0.53 N/mm² (±10%) | |
| DIN 1607 | Tensile strength | | 0.14 N/mm² (±10%) | |
| DIN 1048 | Dynamic modulus of elasticity | | 833 N/mm² (±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 5964-TT | 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 | $DL_\alpha$ 11 dB Category A3 | |

## ACOUSTIC PERFORMANCE

| Frequency (Hz) | Reapor 25 mm | Reapor 50 mm | Reapor 63 mm |
|---|---|---|---|
| 100 | 0.04 | 0.08 | 0.16 |
| 125 | 0.06 | 0.10 | 0.23 |
| 160 | 0.08 | 0.29 | 0.38 |
| 200 | 0.13 | 0.37 | 0.53 |
| 250 | 0.13 | 0.57 | 0.81 |
| 315 | 0.23 | 0.92 | 1.02 |
| 400 | 0.35 | 1.12 | 1.13 |
| 500 | 0.52 | 1.23 | 1.13 |
| 630 | 0.67 | 1.21 | 1.07 |
| 800 | 0.90 | 1.02 | 0.97 |
| 1000 | 1.05 | 0.98 | 0.92 |
| 1250 | 1.13 | 1.03 | 0.98 |
| 1600 | 1.05 | 1.09 | 1.04 |
| 2000 | 0.97 | 1.08 | 1.02 |
| 2500 | 0.93 | 1.04 | 1.03 |
| 3150 | 0.98 | 1.05 | 1.01 |
| 4000 | 0.99 | 1.04 | 1.08 |
| 5000 | 0.94 | 1.04 | 0.95 |
| NRC | 0.65 | 0.95 | 0.95 |
| SAA | 0.67 | 0.97 | 0.97 |
| $\alpha_w$ | 0.45 (MH) | 0.90 | 1.00 |




*Tested to ISO 354:2003 at Vienna Experimental and Research Institute (Austria) & CSIRO (Australia)*
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*For further information and contact details, please visit our website*
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