

## the sound absorber for challenging environments

Reapor was developed to maximise noise energy absorption. Reapor resolves issues of fire, weather aging and contamination damage. Constructed from recycled material, easily maintained and VOC free, Reapor panels are easily fixed and worked.

#### applications

Reapor is designed for applications where both sound absorption and a high level of fire resistance is required.

- Outdoor areas
- High fire safety areas
- Tunnels, vent shafts and exits
- Machinery enclosures
- Schools, hospitals, aged care facilities
- Road barriers, exterior plant fences
- Wet areas, car washes

- Plant rooms, substations
- Pools, spas
- Rail tunnels, transport depots
- Interior, plain, painted, rendered
- Exit ways, smoking areas, stairwells
- Airports, stations, parking exits of residential buildings
- Swimming pools

#### features

Reapor is useful in the control of unwanted noise in a range of applications. It is ideal for all indoor and outdoor environments.

- High sound absorption
- Non-combustible
- Fibre-free
- Rigid and durable
- Not affected by water
- 100% recyclable
- Easily worked

- Lightweight
- Quick and simple to install
- Non-toxic, volatile organic compound free
- Simply maintained and cleaned
- May be painted
- Simple to repair
- Safe to use











#### environmentally aware

Products that are sensitive to the environment are important if we are to sustain our way of life and recycling must play an important part in our future.

Being made from recycled glass bottles and binder free, Reapor panels can be recycled at the end of its application life.

### fire safety

Worldwide building codes have tightened with an increase in the understanding of the risk of harm to building occupants and users. The addition of fire retardants, while slowing the spread of fire, often did not reduce smoke production, creating unacceptable hazards in a fire. Critical areas and specified types of buildings are required by legislation to utilise products with the highest levels of fire resistance. The toughest of these legislations and the accompanying tests require the product to be virtually non-combustible.

Reapor has achieved a non-combustible rating making it safe and legal to use in all building areas and applications, resulting in a fire-safe way to control unwanted noise.

Tested to conform to DIN 4102 Part 1 Class A1.







#### product construction

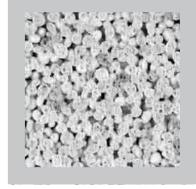
Reapor uses recycled glass as its core component. During manufacturing the glass forms expanded glass granules. Each granule acts as an acoustic absorber in its own right. Through a heating process the granules are fused together to form a homogenous panel making a highly efficient acoustic absorber.

This process stops the product from out-gassing any volatile organic compounds, developing smoke in a fire or breaking down through binder failure.

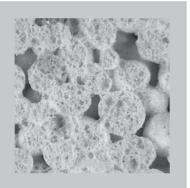
#### weather, moisture and contamination

Noise control in outdoor areas or where products are affected by moisture or contamination have required elaborate methods of protection, often reducing the acoustic performance. Reapor has natural resistance to environmental contamination and is unaffected by water and sunlight.

Reapor installed correctly will last indefinitely. If exposed to damp conditions a sodium residue may appear on the surface, which will not affect the product's performance and can be simply washed off with water.











### product description

Standard panel size (stocked)

50mm x 625mm x 625mm

24.5mm x 1200mm x 625mm

### product finishes

Reapor can be painted, graffiti-protected, or with a render finish.

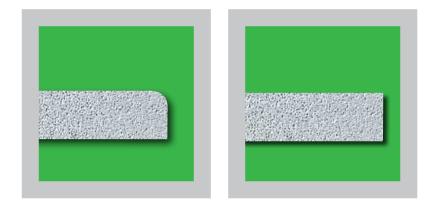
#### edge detail

Reapor is available as chamfered edge for tile finish or square edge for render finish.

### installation

Reapor panels can be bonded using adhesive, or mechanically fixed depending on the application and substrate. To maintain the non-combustible nature of a fitted panel system, an easy-to-use specialist adhesive was developed offering a non-combustible rating and provides a permanent bond to a range of substrates.

The panels can be machined and processed using standard equipment and dust protection. Reapor panels can be easily painted with non-bridging paint, rendered for a seamless finish or routed to provide varying texture and shadowing effects.





#### acoustic testing

Reapor, when tested independently to ISO standard, displays exceptional acoustic performance for its thickness. Reapor benefits from its construction with each granule acting as a noise energy absorber. The high absorption properties (NRC 0.90:50mm), when combined with the product's other features, means noise control can be introduced to areas previously difficult to treat due to limitations of fire, environmental factors or work safety (fibre-free).

Reapor is tested to DIN EN ISO 354: 2003. Full report is available on request.

Product thickness	NRC
50 mm DIN EN ISO 354:2003	0.90
24.5 mm DIN EN ISO 354:2003	0.70











# product properties

Property	Reapor	Test method
Density	270kg/m³ (±10%)	DIN 51065
Compressive strength	1.2N/mm <sup>2</sup> (±10%)	DIN 1164
Flexural strength	0.5N/mm² (±10%)	DIN 1164
Freeze-thaw resistance	0.25 loss in M%	DIN 12091
Elastic modulus (static)	760 $\pm$ 80N/mm <sup>2</sup>	DIN 1048-5
Elastic modulus (dynamic)	$1.020 \pm 50 \text{N/mm}^2$	DIN 1048-5
Water vapour diffusion resistance	25	DIN 51065
Thermal conductivity	0.08W/mK	DIN 52612
Fire resistance	Non-combustible	DIN 4102 A1
Length-specific flow resistivity	10 - 20 kPa s/m³	DIN EN 29053





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Gaveats: Specifications are subject to change without notice. The data in this document are 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 or mechanical engineer on data presented by the manufacturer. Due to the wide variety of individual projects. Pyrotek NC 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 infinge any third party's patents or rights. DISCLAIMER: This document is covered by Pyrotek standard Disclaimer, Warranty and © Copyright clauses. See www.pyroteknc.com/disclaimer.

