Whisper® UV Sound Absorbing Polyethylene Foam



Technical Data Sheet

PRODUCT DESCRIPTION

Whisper® UV is an Ultraviolet Resistant closed cell polyethylene foam which uses a high performance honeycomb like structure to absorb noise. This durable material remains acoustically 'soft' eliminating the problem of hard reflective surfaces that contribute to reverberation and echo.

Whisper® UV was formulated for use in outdoor fencing and ground level noise barrier wall applications.

The acoustic properties of Whisper® UV are maintained following exposure to water & moisture retaining 100% of its acoustic performance after draining, with no need for a water barrier, protective film, or perforated metal facing.

FEATURES and BENEFITS

- · Resistant to water and humidity
- · Superior noise control
- · Easy to fabricate
- · Quick to install
- · Does not support fungal growth
- · Non-conductive
- · Non-corrosive
- Low dust adhesion
- · No need for moisture barriers
- · Perforated facings not required
- Fast installation
- Operating Temperature -60°C to +80°C
- · Light weight
- · Fibre free
- UV resistant
 Whisper® UV has been independently tested to over
 2000 hours in a QUV accelerated aging chamber.
 Testing showed that after UV exposure, the material
 exhibited similar acoustic behaviour to unexposed
 material.

APPLICATIONS

Whisper® UV sound absorbing panels have successfully helped reduce noise in outdoor conditions since 2013. Used in a wide range of applications from outdoor sports, shooting ranges, hospitality and concert venues, industrial applications, and in road and high speed rail noise barrier walls, which demand a versatile and durable solution for outdoor acoustic absorption.



ACOUSTIC PROPERTIES

Thickness (mm)	Acoustic Class	Transmission loss Rw (dB)
25	D	-
50	А	13
100	А	18

PHYSICAL INFORMATION

Maximum board length	2.4m	
Maximum board width	1.2m	
Material thickness	25mm, 50mm and 100mm	
Colour	Black	

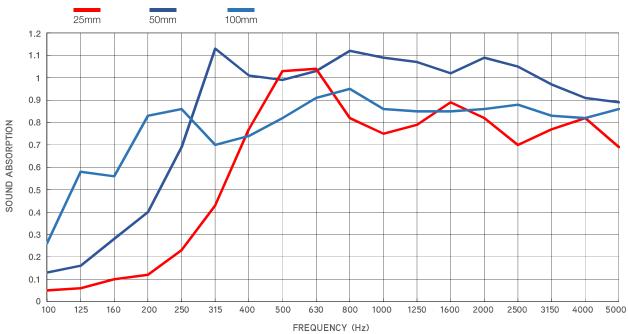
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TECHNICAL DATA

Physical Properties	Test Method	Typical Physical Properties
Nominal Density	ASTM D3575-08 Suffix W ISO 845	30 Kg/m³
Compressive Strength Vertical @ 25% Vertical @ 50%	ASTM D3575-08 Suffix D ISO 7214	10 KPa 24 KPa
Compressive Strength 25% (4th compression) 50% (4th compression) 70% (4th compression) (100mm/min compression speed)	ISO 3386-1 DIN 53577	3 KPa 13 KPa 50 KPa
Compression Set	ASTM D3575-08 Suffix B (50% Compression) ISO 1856 (25% compression)	< 30% < 20%
Cell Size	-	< 10 Cells/25mm
Water Pick Up by Diffusion (RH > 95% - after 28 days)	EN ISO 16536	< 3 Kg/m ²
Water Pick Up by Diffusion (RH > 95% - after 28 days)	EN ISO 16536	< 5 Volume %
Thermal Conductivity @ 23°C (73°F) @ -5°C (23°F)	ASTM D3575-08 Suffix V ISO 8301	0.104 W/mK 0.082 W/mK
Thermal stability (24hrs at 70°C)	ASTM D3575-08 Suffix S ISO 2796	< 3%
Tensile Strength @ Peak	ASTM D3575 Suffix T ISO1798	130 KPa
Tensile Elongation	ASTM D3575 Suffix T ISO1798	70%
Airflow Resistance	EN ISO 9053-1	510,000 (25mm) Pa.S/m³ = Rayls/m² 2,785,000 (50mm) Pa.S/m³ = Rayls/m²
Non-Acoustic Performance	EN 1794-2	Class 1 (fire)

These numerical laboratory fire-test-response characteristics are not intended to reflect hazards presented by this material under actual fire conditions.

Sound Absorption Reverberation Room testing according to EN ISO 354







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