

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	A	13
100	A	18

PHYSICAL INFORMATION

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

TECHNICAL DATA

Physical Properties	Test Method	Typical Physical Properties
Nominal Density	ASTM D3575-08 Suffix W ISO 845	30 Kg/m ³
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/m ³ = Rayls/m ² 2,785,000 (50mm) Pa.S/m ³ = Rayls/m ²
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

