

# Whisper® FR

## Sound Absorbing Polyethylene Foam

### Technical Data Sheet

#### PRODUCT DESCRIPTION

Whisper® FR is a Fire 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® FR is washable, water resistant with excellent durability and outstanding indoor air quality characteristics.

#### 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
- Fire Classification (EN 13501-1):
  - 20-30mm B-s1,d0
  - 40-50mm B-s2,d0

#### APPLICATIONS

Whisper® FR sound absorbing panels help to safely reduce noise, make music sound better, allow people to speak and hear one another, and contribute to a safer and more productive work environment, indoors or outside.

Whisper® FR is ideally suited to a wide variety of acoustic applications including sports facilities and indoor swimming pools, industrial enclosures, heat pumps, car washes, recording studios, industrial machinery, pump stations, restaurants, art galleries and even shooting ranges.



#### ACOUSTIC PROPERTIES

Thickness (mm)	Acoustic Class	Transmission loss Rw (dB)
25	D	-
40	A	-
50	A	13
60	B	16
100	A	18

#### PHYSICAL INFORMATION

Maximum board length	2.4m
Maximum board width	1.2m
Material thickness	25mm, 40mm, 50mm, 60mm, 100mm
Colour	White, Anthracite, Grey

## TECHNICAL DATA

Physical Properties	Test Method	Typical Physical Properties
Nominal Density	ASTM D3575-08 Suffix W ISO 845	25 Kg/m <sup>3</sup>
Compressive Strength Vertical @ 25% Vertical @ 50%	ASTM D3575-08 Suffix D ISO 7214	7 KPa 12 KPa
Compressive Strength 25% (4th compression) 50% (4th compression) 70% (4th compression) (100mm/min compression speed)	ISO 3386-1 DIN 53577	3 KPa 7 KPa 25 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 <sup>2</sup>
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 ISO 1798	130 KPa
Tensile Elongation	ASTM D3575 Suffix T ISO 1798	60%
Airflow Resistance	EN ISO 9053-1:2018	510,000 (25mm) Pa.S/m <sup>3</sup> = Rayls/m <sup>2</sup> 2,785,000 (50mm) Pa.S/m <sup>3</sup> = Rayls/m <sup>2</sup>
Fungi Resistance of Insulation materials and facings	ASTM C1338	Pass
Fire Test – Transportation* (20 – 50mm)	EN 45545-2	HL1-3 - Floor composites R10 HL1 - Interior vertical surfaces R1 HL1 - External body shell R7
Fire Test – Automotive*	DIN 54837 FMVSS 302	S3, SR2, ST2 Pass

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

## Sound Absorption Reverberation Room testing according to EN ISO 354

