EGR POLYMER PANEL TECHNICAL DATA SHEET

Zenolite® plus – UK

General Properties

Properties	Test Method	Zenolite
Specific gravity	ASTM D-792	1.19
Water absorption	ASTM D-570	<0.5%
Gloss*	AS/NZS 1580.602	>90%
Tensile strength	ASTM D-638	70MPa
Elongation at Yield	ASTM D-638	4%
Tensile modulus	ASTM D-638	3,000 MPa
Flexural strength	ASTM D-790	100 MPa
Flexural modulus	ASTM D-790	3,000 MPa
Izod impact strength, Milled Notch	ASTM D-256	15J/m
Pencil Hardness*	ASTM D-3363	>6H
Erichsen Hardness*	ISO 4586-2 (DIN EN 438-2)	≥ 1.1N
Abrasion	ASTM D-1044	< 10 % Gloss
HDT 264 Psi, 1.82MPa	ASTM D-648	203°F (96°C)
CTE, -30°C to 30°C	ASTM D-696	0.7mm/1000mm/10 °C
Vicat softening point		219°F (104°C)
Continuous service temperature		170°F (77°C)
Max temperature, short term		202°F (95°C)
Degradation temperature		>530°F (> 275°C)

** Internally tested by EGR*

Product Description

Zenolite high gloss acrylic panels are a versatile product suitable for many interior applications. Zenolite features an integrated colour layer, a thick optically clear layer and a high performance hard coated surface. Zenolite has the appearance of back painted glass panels but is light, easy to fabricate, has high impact strength and high chemical resistance.

Applications

Zenolite acrylic panels have many applications such as: store fixtures, decorative screens, feature panels, furniture cladding, POP displays, kitchens, cabinet faces, signage, bathrooms, wet areas, and marker boards. Zenolite is designed as a single face product and is not suitable for back lighting, however it will work well for edge lighting using a polished edge.

Chemical Resistance

Zenolite is chemically resistant to the following substances:

Kerosene, Bleach, Mineral Turps, 10% Citric Acid, Lemon Juice, Vinegar, Coffee, Liquid Soap, Glass Cleaner.

Zenolite should not be exposed the following substances:

Acetone, Methylated Spirits, Abrasive Cleaners, Aggressive Solvents such as Toluene.

Fire Properties

Zenolite complies with many international building standards. For the UK Zenolite complies with material Class 3 when tested in accordance with BS 476: Part 7: 1997. The test condition was 4mm thick panel adhered to a Class Zero plasterboard substrate. Note that differences in thickness, substrate, colour, form, fixings or adhesive may affect the rating. Building specifiers should always consult with qualified building professionals to ensure that the material is suitable and compliant for the chosen application as per local building code requirements.

169-181017

Fire Test Results

Properties	Test Method (DOT)	Requirements	Result
Flame spread after 1.5mins	BS476: Part 7:1997 (2016)	Class 1 < 165mm Class 2 < 215mm Class 3 < 265mm	130mm
Flame spread after 10 mins	BS476: Part 7:1997 (2016)	Class 1 < 165mm Class 2 < 455mm Class 3 < 710 mm	580mm
Spread of Flame Index	AS3837-1998 (2011) BCA c1.10 – Attachment to a wall lining	Must be < 9 to pass	7
Smoke Development Index	AS3837-1998 (2011) BCA c1.10 – Attachment to a wall lining	Must be < 8 to pass	4
Extent of burn - Light Transmitting Plastics (IBC2606)	ASTM D-635 - (2016)	Class CC2 = <2.5inches/minute	18.5mm/min <1inch/min
Smoke density Rating - Light Transmitting Plastics (IBC2606)	ASTM D-2843 (2016)	Must be lower than 75%	3.7%
Smoke density - Light Transmitting Plastics (IBC2606)	ASTM D-2843 (2016)	Must be lower than 75%	Max smoke density 12%
Ignition Temperature - Light Transmitting Plastic	ASTM D-1929 (2016)		331°C
Spontaneous Ignition Temperature - Light Transmitting Plastic (IBC2606)		Must be greater than 343°C	390°C
Flame spread	UL94 Horizontal Burning test 94HB (2008)	Burn rate < 40mm / min	Average 23mm / min

References to the product's performance under the testing standards above are informational only. Please consult with qualified building professionals to ensure that the material is suitable and compliant for the chosen application as per local building code requirements.