TECHNICAL DATASHEET

VITROFLEX CAST PMMA

VITROFLEX CAST PMMA is a material of high transparency and surface quality, ten times lighter than glass. Its lack of coloration and high optical quality makes it an ideal material for applications in which transparency and surface quality are important. In addition, its great resistance to ageing makes it an excellent product for outdoor use, for it remains virtually unchanged outside. VITROFLEX CAST PMMA is also suitable for thermoforming or machining, being an easy handling material that offers a good performance in temperature oscillations and does not release toxic gases in combustion.

ADVANTAGES OF VITROFLEX CAST PMMA

- Excellent optical quality.
- Good weather resistance.
- Impact resistance.
- Optimal resistance to ageing. It is the best material for outdoor use.
- Easy handling and thermoforming.
- High thermal and acoustic resistance.
- Light weight compared to glass.
- Does not give off toxic gases when burnt. Free of halogens.

TYPES AND FORMATS

Thicknesses ranging from 3 to 250mm, in various plate sizes.Transparent, translucent and opaque colours available. Option of matt and gloss surfaces.
Special properties: UV barrier, hardened material (EN), flexibility, especially for moulding.
It is also available in a matt version.

APPLICATION AREAS

- Acoustic screens.
- Aquariums.
- Covers.
- Urban furniture.
- Signalling and signage.
- Boat windows and windshields.
- Basketball boards.
- Furniture.
- Skylights.
- Restaurant menu stands.
- Advertising posters.
- Solar / photovoltaic panels.
- Greenhouses.
- Exhibition stands.
- Tubes and bars.
- Glazing and protection.
- Enclosures.
- Screens and acoustic barriers.

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TECHNICAL SPECIFICATIONS - VITROFLEX CAST PMMA

Properties	Value	Units	Standard
Physical properties			
Density	1.2	g/cm^3	ISO 1183
Water absorption	0.19	%	ISO 62
Mechanical properties			
Tensile strength	72	MPa	ISO 527
Traction elasticity module	3000	MPa	ISO 527
Elongation at break	4	%	ISO 527
Impact strength. Charpy method	16	kJ/m^2	ISO 179/2D
Rockwell hardness	100	R-scale	ISO 2039-2
Flexural strength	116	MPa	ISO 178
Electrical properties			
Specific resistance	$>10^{15}$	Ohm	DN53458
Volume resistance	$>10^{15}$	Ohm.cm	DN53458
Dielectric constant			
a) 50HZ	3.6		DN53483
b) 1MHz	2.8		
Thermal properties			
Linear thermal expansion coefficient	(23-70°C) EN2155-12	$70.6.10^{-6}$	K^{-1}
VICAT softening temperature	105	°C	ISO 306
Bending temperature under load (Method A, 1.8MPa)	105	°C	ISO 75
Dimension variation at high temperature (shrinkage)	2.3	%	
Inflammability	HB	-	UL94
Optical properties			
Total light transmission	92	%	ISO 2857
Artificial light ageing XENOTEST	5	Grey scale	ISO 4892
HAZE turbidity value	0.4	%	EN 2155-9
Refractive index n_D^{23} (Method A)	1.492	-	ISO / R489
Fire properties			
Construction (EU)	E		EN13501-1
Lighting and transparency	HB		UL94

FT VITROFLEX COL. PMMA EN 181120

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