TECHNICAL DATA

VITROFLEX PMMA BLOCKS

VITROFLEX PMMA BLOCKS offer high impact resistance, and are ten times lighter than glass. They offer high clarity and a very high optical quality, starting from 30mm thick. It is an ideal material for applications where good visibility is important. In addition, its great resistance to ageing makes it an excellent product for outdoor use, as it stays virtually unchanged in the open. VITROFLEX PMMA BLOCKS are also suitable for thermoforming, since the material is easy to handle and also offers a good performance against temperature fluctuations, while it does not release toxic gases in its combustion.

ADVANTAGES OF VITROFLEX PMMA BLOCKS

- Excellent optical quality.
- Unlimited size through invisible chemical bonds.
- Very hard methacrylate plates 30 to 200mm thick
- Low level of internal tensions.
- High resistance to the elements.
- Impact resistance.
- High resistance to ageing.
- High thermal and acoustic resistance.
- Does not give off toxic gases when burning. Halogen free.
- Large special formats available.

TYPES AND FORMATS

Their thicknesses range from 30 to 250mm, reaching up to 8000mm in length. Larger dimensions and greater thickness upon request. Colours upon request. Special options for LED lighting also available.

APPLICATION AREAS

- Aquariums.
- Indoor and outdoor pools.
- Water tanks.
- Ponds.
- Marine nurseries.
- Overflowing walls.
- Fish farms.
- Transparent urns.
- Large decorative elements.
- Security perimeter fences.

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TECHNICAL SPECIFICATIONS - VITROFLEX PMMA BLOCKS

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) 1 MHz	2,8		
Thermal properties			
Linear thermal expansion coefficient (23-70°C)	$70.6.10^{-6}$	K^1	EN2155-12
VICAT softening temperature	105	°C	ISO 306
Bending temperature under load (Method A, 1.8MPa)	105	°C	ISO 75
Dimension variation at high temperature (contraction)	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	0.5	%	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

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