

TECHNICAL INFORMATION C4/0508

vitroflex® OPAQUE features

Vitroflex OPAQUE is the methacrylate cast sheet with colours that do not let pass the light through in a high percentage.

PROPERTIES

- OPAQUE range provides an infinite range of colours with high optical quality, no impurities on the surface.
- Brightest colours on the market and maximum resistance to aging.
- Suitable for outdoor use.
- Colour opacity in all thicknesses is maintained, allowing mixing pieces of the same colour in different thicknesses¹.
- It is easily machined.
- It can be polished to give a total brightness.
- It can be slightly cold bent.
- It can be thermoformed.
- Lighter than other materials.
- High impact resistance.
- Low thermal conductivity.

APPLICATIONS

- Decorative pieces (gift, florist, catering, etc.)
- Signage.
- Railings, screens and divisions.
- Furniture.
- Façade panels.
- Wall cladding.

¹ It must be specified in the order.

OPERATION

- It can be stuck, bended, thermoformed, perforated, polished, milled, etc. just as the standard quality Vitroflex.
- If you need to mechanize the piece, you should consider the reduction of opacity in the areas where the thickness is reduced. You can ask more opacity to avoid the problem, as well as is recommended preferably to reduce the thickness on the side of the thicker white or colourless protection film.
- The protective film can be kept during the entire production line, including the thermoformed.²

MAINTENANCE

- As its surface is compact and not porous, it can be easily cleaned using a gentle soap solution (neutral pH) with warm water and a nonabrasive cloth. The use of aggressive detergents with non-neutral pH can reduce the service life.
- If an adequate disinfection is required, it is advisable to refer to the table of chemical resistance of Vitroflex, test a piece with no value, and preferably use the manufacturer recommended products only.
- The use of glass washers with alcohol or other similar products may negatively affect the properties and reduce the service life.
- In case the surface has small scratches due to the daily use, they can be removed using a specific polish for car bodies that is used manually. If deep scratches appear or if it is necessary to polish large surfaces, it is advisable to use an orbital eccentric polishing machine.

RANGE

- Size:
 - They are manufactured according to the European standard of 3050 x 2050 mm.
 - Custom-cut sizes can be supplied.
- Colours³:

– WHITE (7%)	B125NN
– WHITE (0%)	B125AN
– BLACK (2%)	N135NN
– BLACK (0%)	N135AN

² It is advisable to run previous tests because heating temperatures and timing should be adjusted in order to get optimum results.

³ Other colours on request.

- Thickness:
 - The standard thickness is 3 mm.
 - It can be produced with any requested thickness.

QUALITY

- In compliance with the rule ISO 7823/1 applicable to methacrylate cast sheets.
- All pieces are controlled.
- Use of high quality shining pigments with maximum resistance to ageing.

OTHER AVAILABLE INFORMATION

- Table of resistance for various chemical products.
- "Safety Data Sheet" for operation.
- Technical specifications of colours.

Vitroflex OPAQUE

TECHNICAL FEATURES ISO 7823-1⁴

Physical properties			
Relative density - Volumetric mass (A Method)	1,19	g/cm ³	ISO 1183
Water absorption (Method 1)	0,3	%	ISO 62
Mechanical properties			
Tensile strength (Type 1 Test, B speed)	72	MPa	ISO 527
Traction elasticity module (Type 1 Test, B speed)	3000	MPa	ISO 527
Elongation at break (Type 1 Test, B speed)	5	%	ISO 527
Impact strength. Charpy method	17	KJ/m ²	ISO 179/2D
Rockwell hardness (M Scale)	100		ISO 2039/2
Bending strength	100	MPa	ISO 178
Electrical properties			
Specific resistance	>10 ¹⁵	Ohm	DIN 53458
Volume resistance	>10 ¹⁵	Ohm.cm	DIN 53458
Dielectric constant a) 50 Hz b) 0,1 Hz	3,6 2,8		DIN 53483
Thermal properties			
Coefficient of linear expansion	70,6.10 ⁻⁶	K ⁻¹	EN 2155-12
VICAT softening temperature	105-120	°C	ISO 306
Bending temperature under load (A Method, 1,8 MPa)	105	°C	ISO 75
Dimension variation at elevated temperatures (shrinkage)	2,3	%	Annex
Optical properties			
Light transmittance a) Total light transmission at 380-780 nm b) Light transmission at 420 nm c) Light transmission at 420 nm after 1000 hours in the xenon lamp	It depends on the colour (see the colour sheet)	%	ISO 2857
HAZE turbidity value	Does not apply	%	EN 2155-9
Refractive index n° (A Method)	Does not apply	-	ISO/R 489

⁴ The values of this table refer to the sample of Vitroflex MCI100NN0030. Typical values are not intended for the design.

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