

TECHNICAL INFORMATION C2/0308

vitroflex® TRANSPARENT features

Vitroflex TRANSPARENT is the methacrylate cast sheet produced with transparent colours that allow the vision through without distortion.

PROPERTIES

- The greater range of transparent colours on the market.
- The transparent range includes bright colours red, yellow, blue and green, to opaque colour almost dark blackish appearance, through smoky colours grey, blue and brown.
- High optical quality without distortion and transparent.
- Brightest colours on the market and maximum resistance to aging.
- Colour intensity is maintained at all thicknesses.
- 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.)
- Windows of nautical vessels.
- Protections of industrial machines.
- Signage.
- Railings, screens and divisions.
- Caravan windows.

- It can be stuck, bended, thermoformed, perforated, polished, milled, etc. just as the standard quality Vitroflex.
- The protective film can be kept during the entire production line, including the thermoformed.¹

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.

¹ It is advisable to run previous tests because heating temperatures and timing should be adjusted in order to get optimum results.

- Colours²:
 - YELLOW MCA467NN
 - ORANGE MCA175NN
 - TRANSPARENT ORANGE MCA261NN
 - TRANSPARENT RED MCR594NN
 - RED MCR292NN
 - FUCHSIA MCF206NN
 - TRANSPARENT BLUE MCZ142NN
 - SMOKE - on stock 3,6,8,10,12,15 mm MCZ200NN
 - BLUE MCZ469NN
 - GREEN MCV339NN
 - TRANSPARENT GREEN MCV385NN
 - GREEN MCV229NN
 - GREEN MCV539NN
 - BROWN MCM506NN

- Thickness:
 - The standard thickness is 3 mm.

 - It can be produced with any requested thickness.

 - When thickness increases, the colour intensity of the edges is reduced, maintaining the colour shade on the surface. If you wish to keep the colour intensity of the edges, you must specify this when ordering.

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.

² Other colours can be provided at request.

Vitroflex TRANSPARENT

TECHNICAL FEATURES ISO 7823-1³

| 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 | % | ISO 2857 |
| HAZE turbidity value | " | % | EN 2155-9 |
| Refractive index n ⁰ (A Method) | 1,492 | - | ISO/R 489 |

³ The values of this table refer to the sample of Vitroflex MCI100NN0030. Typical values are not intended for the design.

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