

TECHNICAL INFORMATION C12/0903

vitroflex® PHOTOLUMINESCENT features

Vitroflex PHOTOLUMINESCENT is the methacrylate cast sheet that remains illuminated in the dark for being photoluminescent.

PROPERTIES

- High lightness in the dark.
- Allows having photoluminescent effect on both sides simultaneously
- Various colours available in both light and darkness.
- High optical quality, undistorted and transparent.
- High brightness.
- Also available with satiny surface.
- It is easily machined.
- It can be slightly cold bent.
- It can be thermoformed.
- Lighter than other materials.
- High impact resistance.
- Low thermal conductivity.

APPLICATIONS

- Security elements desired to remain identified in the dark.
- Emergency signage, emergency exits, fire extinguishers, etc. Both buildings and public roads.
- Wireless lighting of stairs, corridors, etc.
- Decorative elements where special effects are desired.

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

QUALITY

- In compliance with the rules UNE 23035-4:2003 (for plaques and sheets, category B) and DIN 67510-1:2002.
- In compliance with the rule ISO 7823/1 applicable to methacrylate cast sheets.
- All pieces are controlled.

OTHER AVAILABLE INFORMATION

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

Vitroflex

PHOTOLUMINESCENT

TECHNICAL FEATURES ISO 7823-1²

Physical properties			
Relative density - Volumetric mass (A Method)	1,19	g/cm ³	ISO 1183
Water absorption (Method 1)	0,18	%	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)	11	%	ISO 527
Impact strength. Charpy method	>13	KJ/m ²	ISO 179/2D
Rockwell hardness (M Scale)	100		ISO 2039/2
Bending strength	124	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	110	°C	ISO 306
Bending temperature under load (A Method, 1,8 MPa)	101	°C	ISO 75
Dimension variation at elevated temperatures (shrinkage)	2,3	%	Annex

TECHNICAL FEATURES UNE 23035-4:2003 (category B) and DIN 67510-1:2002

Photoluminescent properties			
Time (minutes)	Photoluminescence (mcd/m ²)	UNE 23035-4:2003 (category B)	DIN 67510-1:2002
5 minutes	118.8		
10 minutes	58.9	40	20
30 minutes	17.8		
60 minutes	7.9	5.6	2.8
120 minutes	304		
969 minutos	0.3	t attenuation >800	t attenuation >340

² The values of this table refer to the sample of Vitroflex MCI100NN0030. Typical values are not intended for the design.

Important: *The information and statements included are believed to be reliable; however, they should not be interpreted as a guarantee or representation that Polimer Tecnic assumes the legal responsibility.*

Users must perform all verifications and tests as appropriate to determine the particular suitability of any information or product mentioned in this document. Polimer Tecnic cannot guarantee the competence of the material for any particular purpose.

Nothing in this document may be interpreted as a permission, incentive or recommendation to operate any patented invention without a license.
