Policril® REC

Specification & Data Sheet

Issued April 2021

About Policril® REC

Irpen (U.K.) Ltd. has invested heavily in research and manufacturing techniques to develop a wide portfolio of cast acrylic sheets to suit many applications. As our latest innovation we introduce Policril® REC, acrylic cast sheets produced from 100% recycled methyl methacrylate monomer.

Environmentally Friendly

Policril® REC is an extremely stable and environmentally friendly product. As an added value, this new product creates a more sustainable future and helps to protect our planet.

Quality Guarantee

Policril® REC is produced in Spain and has the same mechanical and physical properties as cast acrylic sheets produced with synthetic monomer.

100% RECYCLED

100% RECYCLABLE

Why do our customers & distributors choose Policril® REC?

- Reduction of raw material usage
- Reduction of carbon foot-print from sheet production
- Guarantee of premium quality
- Reduction of waste from sheet production
- Increasing the life-cycle of cast acrylic
- Respect for the environment and our planet

Product Range

Policril® REC is available in the following thicknesses:

Clear
3mm, 4mm, 5mm, 6mm, 8mm 10mm

Black, White, Opal
3mm & 5mm

Colours Available:

- Clear
- Black NE9302
- White B1301
- Opal B1201

PO 01 REC

Propierties	Values	Unit	Test method
General			
Density [1]	1,19	g/cm^3	ISO 1183, Method A, C or D
Water absorption	0,5	%	UNE-EN ISO 60, Method 1 (24h,23°C)
Calorific power (760 mm and 0°C)	1,255	KJ/Kg oC	-
Ignition temperature T_i	300	°C	ASTM-1929
Self-ignition temperature Tai	430	°C	ASTM-1929
Reaction to fire by radiation	M4	-	UNE-23-727
Flammability Test[1]	Class E	-	UNE-EN 13501-1:2007+A1:2010
Thermal			
Specific heat	0,35	KJ/Kg °C	-
Heat conductivity	4,5 x 10^{-4}	cal cm /cm^2 seg oC	DIN 52612
Heat transmission coefficient K 3 mm	5,5	Kcal/ m^{2}h °C	-
Softening temperature VICAT	>110	°C	UNE-EN ISO 306 Método A50
Temperature for buckling under load	98	°C	UNE-EN ISO 75-2/A
Recommended moulding temperature	150-170	°C	-
Maximum service temperature			IRPEN
Flat sheet	80-85	°C	
Moulded part	75-80	°C	
Linear dilation coefficient	7 x 10^{-5}	K^{-1}	ISO 11359-2
Dimensional variations at high temperature (contraction)	Max. 2,5	%	UNE-EN ISO 7823-1 Annex A
Mechanical			
Resistance to Charpy impact (test piece not notched)	min. 13	KJ/m^2	ISO 179/1
Rockwell hardness	100	Escala M	UNE-EN ISO 20392
Friction coefficient			IRPEN
PMMA/PMMA	0,8	°C	
PMMA/Steel	0,48-0,55	°C	
Optical			
Total Light transmission [2]	min.90	%	ISO 143468-1
Turbidity	1	%	
Refractive index	1,49	-	
Acoustic			
Soundproofing			
4mm	24	dB	DIN 52210
6mm	27	dB	
10mm	29	dB	
20mm	32	dB	
Electric			
Specific transversal resistance	min. 10^{15}	Ω cm	DIN VDE 0303 P3
Dielectric strength Ed (1 mm test piece)	30	KV/mm	DIN VDE 0303 P2
Dielectric constant			DIN VDE 0302 P4
50 Hz	3,5	-	
10^6 Hz	2,6	-	
Dielectric loss constant			DIN VDE 0303 P4
50 Hz	5x10^{-2}	-	
10^6 Hz	5x10^{-2}	-	

(1) Clear material (2) Clear material 3 mm