

Acrylic Extruded

Material Information



Acrylic Extruded

Product full identity:

Polymethyl Methacrylate (PMMA) Extruded

Acrylic is the alternative to glass with the added advantages of being lighter and many times stronger. Extruded Acrylic is produced with greater tolerance and can be used in a diverse range of applications due to its excellent optical and hard-wearing properties.

Properties

- Excellent optical clarity
- Six times stronger than glass
- Good temperature resistance (+70°C to -40°C)
- High UV resistance
- Easily machined and thermoformed
- Easily glued and polished

Applications

- Signage
- Glazing
- Displays
- Lighting Fixtures

Forms



Solid Rod



Sheet



Tube



Square Tube

Acrylic Extruded

Technical Properties

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	ISO 1183	1.19
Water absorption until saturation at 23°C	%	ISO 62	0.20
Maximum service temp. Upper temp limit – short term	°C	-	90
Maximum service temp. Upper temp limit – long term	°C	-	70
Lower temp limit	°C	-	-
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	ISO 527-2	70
Elongation at yield	%	ISO 527-2	4
Tensile strength at break	MPa	-	-
Unnotched impact strength	kJ/m ²	ISO 179-1	17
Notch impact strength	kJ/m ²	ISO 179-1	2
Ball indentation / Rockwell hardness	MPa	EN ISO 2039-1	235
Shore-D		-	-
Flexural modulus of elasticity	MPa	ISO 178	3300
Tensile modulus of elasticity	MPa	ISO 527-2	3200
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	ISO 306	105
Heat deflection temperature HDT/B	°C	-	-
Coefficient of linear thermal expansion 23 – 100°C	m/(m.K)	ISO 11359-2	0.07
Thermal conductivity at 23°C	W/mK	ISO 22007-1	0.18
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	IEC 61631-3-1	10 ¹³
Surface resistivity	Ω	IEC 61631-3-2	10 ¹⁵
Insulation resistivity	Ω . cm	-	-
Dielectric constant at 1MHz		-	-
Dielectric loss factor at 1MHz		IEC 60250	0.02
Dielectric strength	kV/mm	IEC 60243-1	30
Comparative tracking index (CTI)		-	-
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		FDA	No
Food compliance – EU		EU 10/2011	Yes
Antistatic		-	-
Flammability	Unit	Test Method	Result
Fire performance		EN 13501-1 UL 94	E HB
Optical	Unit	Test Method	Result
Light transmission	%	ISO 13468-1	92
Refractive index	-	ISO 489	1.492
Solar energy transmittance g - value	%	ISO 14782	86

All information provided in this Product Datasheet is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.