

PLEXIGLAS® 6N

Product Profile:

PLEXIGLAS® 6N is an amorphous thermoplastic molding compound (PMMA).

Typical properties of PLEXIGLAS® molding compounds are:

- good flow
- high mechanical strength, surface hardness and mar resistance
- high light transmission
- excellent weather resistance
- free colorability due to crystal clarity.

The special properties of PLEXIGLAS® 6N are:

- very good mechanical properties
- high heat deflection temperature
- excellent flow / melt viscosity

Application:

Particularly suitable for injection molding optical and technical items.

Examples:

optical waveguides, luminaire covers, automotive lighting, instrument cluster covers, optical lenses, displays, cuvettes, medical applications etc.

Processing:

PLEXIGLAS® 6N can be processed on injection molding machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® molding compounds are supplied as pellets of uniform size, packaged in 25kg polyethylene bags or in 500kg boxes with PE lining; other packaging on request.

Properties:

	Parameter	Unit	Standard	PLEXIGLAS® 6N
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	3200
Stress @ Break	5 mm/min	MPa	ISO 527	67
Strain @ Break	5 mm/min	%	ISO 527	3
Charpy Impact Strength	23°C	kJ/m ²	ISO 179/1eU	20
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	96
Coeff. of Linear Therm. Expansion	0 - 50°C	E-5 /°K	ISO 11359	8
Fire Rating			DIN 4102	B2
Flammability UL 94	1.6 mm	Class	IEC 707	HB
Rheological Properties				
Melt Volume Rate, MVR	230°C / 3.8kg	cm ³ /10min	ISO 1133	12
Optical Properties				
Luminous transmittance	d=3 mm			
	D65	%	ISO 13468-2	92
Refractive Index			ISO 489	1.49
Other Properties				
Density		g/cm ³	ISO 1183	1.19
Recommended Processing Conditions				
Predrying Temperature		°C		max. 85
Predrying Time in Desiccant-Type Drier		h		2 - 3
Melt Temperature		°C		220 - 260
Mold Temperature (Injection Molding)		°C		60 - 90

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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The Business Unit Performance Polymers of Evonik is a worldwide manufacturer of PMMA molding compounds sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian Continent and under the trademark ACRYLITE® in the Americas.

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