

Product Information

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PLEXIGLAS® 7N Molding Compound

Product Profil:

PLEXIGLAS® 7N 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
- very good weather resistance
- free colorability due to crystal clarity.

Special properties of PLEXIGLAS® 7N molding compound are:

- very good mechanical properties
- high heat deflection temperature
- very good flow / melt viscosity
- AMECA listing.

Application:

Used for injection molding optical and technical items.

Examples:

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

Processing:

PLEXIGLAS® 7N 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® 7N
Mechanical properties				
Tensile modulus	1 mm/min	MPa	ISO 527	3200
Stress at break	5 mm/min	MPa	ISO 527	73
Strain at break	5 mm/min	%	ISO 527	3.5
Charpy impact strength	23°C	kJ/m ²	ISO 179/1eU	20
Thermal properties				
Vicat softening temperature	B / 50	°C	ISO 306	103
Glass transition temperature		°C	IEC 10006	110
Temp. of deflection under load	0.45 MPa	°C	ISO 75	100
Temp. of deflection under load	1.8 MPa	°C	ISO 75	95
Coeff. of linear therm. Expansion	0 - 50°C	E-5 /°K	ISO 11359	8
Fire rating			DIN 4102	B2
Rheological properties				
Melt volume rate, MVR	230 / 3.8	cm ³ /10min	ISO 1133	6
Optical properties				
Transmission factor	d=3 mm			
	D65/10°	%	ISO 13468	92
Haze			ASTM D1003	< 0.5
Refractive index			ISO 489	1.49
Other properties				
Density		g/cm ³	ISO 1183	1.19
Recommended processing conditions				
Predrying temperature		°C		max. 93
Predrying time in desiccant-type drier		h		2 - 3
Melt temperature		°C		220 - 260
Cylinder 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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