

PLEXIMID® TT70

Product Profile:

PLEXIMID® TT70 is a highly heat distortion-resistant poly(n-methyl methacrylimide) (PMMI).

Besides showing the properties common to all PLEXIMID® molding compounds, such as

- excellent transmission and clarity,
- very high mechanical strength and rigidity,
- good weather resistance.

PLEXIMID® TT70 has the following specific characteristics:

- high stability of the optical characteristics at long-lasting thermal load,
- highest heat deflection temperature under load.

Application:

PLEXIMID® molding compound is particularly suitable for injection molding of items meant for applications that involve maximum thermal loads.

Examples:

lenses, light guides, lighting fixtures, covers.

Processing:

PLEXIMID® molding compound can be processed on injection molding machines with standard 3-zone general purpose screws for thermoplastics.

Physical Form / Packaging:

PLEXIMID® is supplied as pellets of uniform size in aluminum-laminated, 25kg polyethylene bags.

Properties:

	Parameter	Unit	Standard	PLEXIMID® TT70
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	4000
Stress @ Break	5 mm/min	MPa	ISO 527	80
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	170
Temp. of Deflection under Load	0.45 MPa	°C	ISO 75	158
Temp. of Deflection under Load	1.8 MPa	°C	ISO 75	149
Fire Rating			DIN 4102	B2
Rheological Properties				
Melt Volume Rate, MVR	260°C / 10kg	cm ³ /10min	ISO 1133	1.7
Optical Properties				
Luminous transmittance	d=3 mm			
	D65	%	ISO 13468-2	91
Refractive Index			ISO 489	1.54
Other Properties				
Density		g/cm ³	ISO 1183	1.21
Water Absorption in Water		%	ISO 62	6
Recommended Processing Conditions				
Predrying Temperature		°C		max. 150
Predrying Time in Desiccant-Type Drier		h		2 - 3
Melt Temperature		°C		260 - 290
Mold Temperature (Injection Molding)		°C		ca. 130

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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