PLEXIGLAS®
THE ORIGINAL BY RÖHM

PRODUCT INFORMATION

PLEXIGLAS® Optical HT

Product Profile:

PLEXIGLAS® Optical HT is an amorphous thermoplastic molding compound (PMMA).

Typical properties of PLEXIGLAS® molding compounds are:
- good flow
- high mechanical strength, high surface hardness and abrasion resistance
- high light transmittance
- excellent weather resistance

Special properties of PLEXIGLAS® Optical HT are:
- increased heat deflection temperature under load and increased Vicat softening temperature
- excellent optical clarity
- UL registration RTI 105°C by UL (fi) 746C
- UL registration Outdoor Suitability by UL (f1) 746C

Application:

PLEXIGLAS® Optical HT is particularly suitable for injection molding and extrusion of technical items.

Examples:

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

Processing:

PLEXIGLAS® Optical HT can be processed on injection molding machines and on extruders with 3-zone general purpose screws for thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Optical HT is supplied as pellets of uniform size, packaged in 25kg polyethylene bags; other packaging on request.

Properties:

	Parameter	Unit	Standard	PLEXIGLAS® Optical HT
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	3600
Stress @ Break	5 mm/min	MPa	ISO 527	71
Strain @ Break	5 mm/min	%	ISO 527	3.0
Charpy Impact Strength	23°C	kJ/m²	ISO 179/1eU	20
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	118
Glass Transition Temperature		°C	ISO 11357	122
Temp. of Deflection under Load	0.45 MPa	°C	ISO 75	117
Temp. of Deflection under Load	1.8 MPa	°C	ISO 75	114
Coeff. of Linear Therm. Expansion	0 - 50°C	E-5 /°K	ISO 11359	7
Flammability UL 94	1.5 mm	Class	IEC 60695-11-10	HB
Rheological Properties				
Melt Volume Rate, MVR	230°C / 3.8kg	cm³/10min	ISO 1133	2.0
Optical Properties	d=3 mm			
Luminous transmittance	D65	%	ISO 13468-2	92
Haze		%	ASTM D1003	<0.5
Refractive Index	589nm/23°C		ISO 489	1.49
Other Properties				
Density		g/cm³	ISO 1183	1.19
Recommended Processing Conditions				
Predrying Temperature		°C		90 - 100
Predrying Time in Desiccant-Type Drier		h		4 - 6
Melt Temperature		°C		230 - 250
Mold Temperature (Injection Molding)		°C		75 - 95

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

Certified to ISO 9001:2015, ISO 14001:2015 and IATF 16949:2016.

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