

## PLEXIGLAS® 7H

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### Product Profile:

PLEXIGLAS® 7H 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.

Special properties of PLEXIGLAS® 7H are:

- very good mechanical properties
- high heat deflection temperature
- high melt strength
- AMECA listing.

### Application:

Used for extruding optical and technical profiles and sheets.

### Examples:

sheets, tubes, multi-skin sheets, coextrusion of window profiles and similar applications

### Processing:

PLEXIGLAS® 7H can be processed on extruders 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® 7H
<b>Mechanical Properties</b>				
Tensile Modulus	1 mm/min	MPa	ISO 527	3200
Stress @ Break	5 mm/min	MPa	ISO 527	76
Strain @ Break	5 mm/min	%	ISO 527	5.5
Charpy Impact Strength	23°C	kJ/m <sup>2</sup>	ISO 179/1eU	20
<b>Thermal Properties</b>				
Vicat Softening Temperature	B / 50	°C	ISO 306	103
Glass Transition Temperature		°C	IEC 10006	112
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
Flammability UL 94	1.6 mm	Class	IEC 707	HB
<b>Rheological Properties</b>				
Melt Volume Rate, MVR	230°C / 3.8kg	cm <sup>3</sup> /10min	ISO 1133	1.4
<b>Optical Properties</b>				
Luminous transmittance	d=3 mm	%	ISO 13468-2	92
Haze			ASTM D1003	< 0.5
Refractive Index			ISO 489	1.49
<b>Other Properties</b>				
Density		g/cm <sup>3</sup>	ISO 1183	1.19
<b>Recommended Processing Conditions</b>				
Predrying Temperature		°C		max. 93
Predrying Time in Desiccant-Type Drier		h		2 – 3
Melt Temperature		°C		220 – 260
Die Temperature (Extrusion)		°C		220 – 260

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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Evonik Röhm GmbH Kirschenallee 64293 Darmstadt  
 Telefon +49 6151 18-4711 Telefax +49 6151 18-3177  
[www.plexiglas-polymers.com](http://www.plexiglas-polymers.com)

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