

Product Information

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PLEXIGLAS® df22 7H Molding Compound

Product Profile:

PLEXIGLAS® df22 7H, based on PLEXIGLAS® 7H, is characterized by diffuse scattering of light.

Typical properties of PLEXIGLAS® molding compound are

- good flow
- high mechanical strength, surface hardness and mar resistance
- very good weather resistance.

Special properties of PLEXIGLAS® df22 7H are

- very good lightdiffusion combined with excellent light transmission
- matte surfaces can be obtained by varying the extrusion parameters.

Application:

Used for extruding profiles and sheets for lighting engineering applications

Examples:

luminaire covers, displays, projection screens and similar lighting applications

Processing:

PLEXIGLAS® df22 7H can be processed on extruders with 3-zone general purpose screws for engineering thermoplastics.

The matte finish of profile surfaces depends very much on machine design (calibrating unit, polishing rolls) and cooling conditions. It can be enhanced by controlled temperature reduction.

Physical Form / Packaging:

PLEXIGLAS® df molding compounds are supplied as pellets of uniform size, packaged in 25kg polyethylene bags; other packaging on request.

Properties:

	Parameter	Unit	Standard	PLEXIGLAS® df22 7H
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	3400
Stress @ Break	5 mm/min	MPa	ISO 527	70
Strain @ Break	5 mm/min	%	ISO 527	6
Charpy Impact Strength	23°C	kJ/m ²	ISO 179/1eU	20
Charpy Notched Impact Strength	23°C	kJ/m ²	ISO 179/1	1.8
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	105
Glass Transition Temperature		°C	IEC 10006	108
Temp. of Deflection under Load	0.45 MPa	°C	ISO 75	101
Temp. of Deflection under Load	1.8 MPa	°C	ISO 75	97
Coeff. of Linear Therm. Expansion	0 – 50°C	E-5 /°K	ISO 11359	6.3
Fire Rating			DIN 4102	B2
Glow Wire Ignition Temperature		°C	IEC 60695-2	700
Rheological Properties				
Melt Volume Rate, MVR	230°C / 3.8kg	cm ³ /10min	ISO 1133	1.1
Optical Properties				
Luminous transmittance	d=3 mm			
	D65	%	ISO 13468-2	86
Half-Value Angle		°	DIN 5036	12.5
Other Properties				
Density		g/cm ³	ISO 1183	1.19
Recommended Processing Conditions				
Predrying Temperature		°C		max. 95
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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