

Plexiglas® 7N

Polymethyl Methacrylate Acrylic
Evonik Industries AG

Message:

Product Profile:
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.

General Information	
UL YellowCard	E65495-247805
Features	Good Colorability
	Good Flow
	Good Weather Resistance
	High Hardness
	High Strength
	Light Stabilized
Uses	Automotive Applications
	Automotive Backlights
	Displays
	Lenses
	Optical Applications
	Protective Coverings
Forms	Pellets
Processing Method	Injection Molding
Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1)
	Isochronous Stress vs. Strain (ISO 11403-1)
	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)
	Shear Modulus vs. Temperature (ISO 11403-1)

Specific Volume vs Temperature (ISO 11403-2)

Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/3.8 kg)	6.00	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3200	MPa	ISO 527-2/1
Tensile Stress (Break)	73.0	MPa	ISO 527-2/5
Tensile Strain (Break)	3.5	%	ISO 527-2/5
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	20	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	100	°C	ISO 75-2/B
1.8 MPa, Unannealed	95.0	°C	ISO 75-2/A
Glass Transition Temperature	110	°C	ISO 11357-2
Vicat Softening Temperature	103	°C	ISO 306/B50
CLTE - Flow (0 to 50°C)	8.0E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (1.60 mm)	HB		UL 94
Fire Rating	B2		DIN 4102
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.490		ISO 489
Transmittance ¹	92.0	%	ISO 13468-2
Haze	< 0.50	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	< 93.0	°C	
Drying Time	2.0 to 3.0	hr	
Processing (Melt) Temp	220 to 260	°C	
Mold Temperature	60.0 to 90.0	°C	
NOTE			
1.	D65		

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