

Technical Data

Product Description

PLEXIGLAS® 8N is an amorphous thermoplastic molding compound (PMMA).

Typical properties of PLEXIGLAS® molding compounds are:

- good flow
- high mechanical strength, surface hardness and abrasion resistance
- high light transmission
- very good weather resistance
- free colorability due to crystal clarity

Special properties of PLEXIGLAS® 8N are:

- optimum mechanical properties
- maximum heat deflection temperature
- 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

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Search for UL Yellow Card	• Röhm GmbH • PLEXIGLAS®		
Availability	• Europe		
Features	• Abrasion Resistant • Amorphous • Good Colorability	• Good Flow • Good Weather Resistance • High Hardness	• High Heat Resistance • High Light Transmission • High Strength
Uses	• Automotive Applications • Displays	• Lenses • Lighting Applications	• Optical Applications
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)	3.0 cm ³ /10min	ISO 1133
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	3300 MPa	ISO 527-2/1
Tensile Stress (Break)	77.0 MPa	ISO 527-2/5
Tensile Strain (Break)	5.5 %	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	103 °C	ISO 75-2/B
1.8 MPa, Unannealed	98.0 °C	ISO 75-2/A
Glass Transition Temperature	117 °C	ISO 11357-2
Vicat Softening Temperature	108 °C	ISO 306/B50
CLTE - Flow (0 to 50°C)	8.0E-5 cm/cm/°C	ISO 11359-2
Flammability	Nominal Value Unit	Test Method
Flammability Classification (1.6 mm)	HB	IEC 60695-11-10, -20
Optical	Nominal Value Unit	Test Method
Refractive Index	1.490	ISO 489
Transmittance ³	92.0 %	ISO 13468-2
Haze	< 0.500 %	ASTM D1003
Injection	Nominal Value Unit	
Drying Temperature	< 98 °C	
Drying Time	2.0 to 3.0 hr	
Processing (Melt) Temp	220 to 260 °C	
Mold Temperature	60 to 90 °C	

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ D65



Where to Buy

Supplier

Röhm GmbH

Darmstadt, Germany
Telephone: +49-6241-402-0
Web: <http://www.acrylite-polymers.com>

Distributor

TER HELL Plastic GmbH

TER HELL Plastic is a Pan European distribution company. Contact TER HELL Plastic for availability of individual products by country.
Telephone: +49-2366-5661-0
Web: <https://www.terplastics.com/>
Availability: Germany

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.
Telephone: +32-11-57-95-57
Web: <http://www.ultrapolymers.com/>
Availability: France, Romania

