

**Technical Data**

**Product Description**

Product Profile:  
 PLEXIGLAS® 6N 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.

The special properties of PLEXIGLAS® 6N are:

- very good mechanical properties
- high heat deflection temperature
- excellent flow / melt viscosity

Application:  
 Particularly suitable for injection molding optical and technical items.

Examples:  
 optical waveguides, luminaire covers, automotive lighting, instrument cluster covers, optical lenses, displays, cuvettes, medical applications etc.

Processing:  
 PLEXIGLAS® 6N can be processed on injection molding machines 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.

**General**

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Processing - Injection (English)</a> • <a href="#">Technical Datasheet (English)</a>
Search for UL Yellow Card	• <a href="#">Evonik Industries AG</a> • <a href="#">Plexiglas®</a>
Availability	• Europe
Features	• Good Colorability • Good Weather Resistance • High Flow • High Hardness • High Strength
Uses	• Automotive Applications • Automotive Backlights • Displays • Lenses • Medical Appliances • Optical Applications • Protective Coverings
Processing Method	• Injection Blow 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) • Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value Unit	Test Method
Density	1.19 g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/3.8 kg)	12.0 cm <sup>3</sup> /10min	ISO 1133
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	3200 MPa	ISO 527-2/1
Tensile Stress (Break)	67.0 MPa	ISO 527-2/5
Tensile Strain (Break)	3.0 %	ISO 527-2/5
Impact	Nominal Value Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	20 kJ/m <sup>2</sup>	ISO 179/1eU
Thermal	Nominal Value Unit	Test Method
Vicat Softening Temperature	96.0 °C	ISO 306/B50

Thermal	Nominal Value Unit	Test Method
CLTE - Flow (0 to 50°C)	0.000080 cm/cm/°C	ISO 11359-2
Flammability	Nominal Value Unit	Test Method
Flame Rating (1.60 mm)	HB	UL 94
Optical	Nominal Value Unit	Test Method
Refractive Index	1.490	ISO 489
Transmittance <sup>3</sup>	92.0 %	ISO 13468-2
Additional Information	Nominal Value Unit	Test Method
Fire Rating	B2	DIN 4102
Injection	Nominal Value Unit	
Drying Temperature	< 85.0 °C	
Drying Time	2.0 to 3.0 hr	
Processing (Melt) Temp	220 to 260 °C	
Mold Temperature	60.0 to 90.0 °C	

**Notes**

<sup>1</sup> 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.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> D65

---

## Where to Buy

---

### Supplier

**Evonik Industries AG**  
Darmstadt, Germany  
**Telephone:** 49-6151-18-3561  
**Web:** <http://www.plexiglas.de/>

---

### Distributor

#### **Nexeo Solutions - Europe**

*Nexeo Solutions is a Pan European distribution company. Contact Nexeo for availability of individual products by country.*

**Telephone:** +34-93-480-9125

**Web:** <http://www.nexeosolutions.com/>

**Availability:** Belgium, France, Ireland, Italy, Netherlands, Portugal, Spain, United Kingdom

#### **Plastribution**

**Telephone:** +44-845-345-4560

**Web:** <http://www.plastribution.co.uk/>

**Availability:** United Kingdom

#### **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



Founded in 1986 and based in Laramie, Wyoming, IDES is now part of the UL family of companies. UL is a premier global independent safety science company with more than a century of proven history. Employing nearly 10,000 professionals in over 100 countries, UL has five distinct business units -- Product Safety, Environment, Life & Health, Knowledge Services and Verification Services -- to meet the expanding needs of our customers and to deliver on our public safety mission.



### Prospector Plastics Database - [www.ides.com/prospector](http://www.ides.com/prospector)

Prospector is a searchable online database that includes 85,000 data sheets from 875 manufacturers and 44,000 UL yellow cards. Each data sheet includes property, processing and supplier contact information. Prospector is relied on by nearly 400,000 design engineers and plastics processors. Using Prospector, they save time with plastic material selection by quickly and easily referencing technical information critical to the success of their products.

*"Prospector is absolutely the best and most well-known search engine for plastic raw materials in the world. We use Prospector every day – it's a real time saver!"*

– Birgit Elvardt Bader, Production Manager, Micotron

#### Power Searches

**Property Search** – select plastics by 500 key properties and design parameters.

**Alternative Resins Search** – find replacement plastics within minutes.

**Automotive Plastics Search** – easily locate automotive approved plastics.

**Curve Data** – view, overlay and export curve data.



### Material Data Management – [www.ides.com/datasheets](http://www.ides.com/datasheets)

With our data management services, plastic suppliers and distributors can have custom search interfaces available on their website for their customers, website visitors, sales and customer service teams. These provide intuitive ways to find and view technical data sheets for their products.

*"With UL IDES data services, our website now displays the most current information on the products we distribute and links to our backend RFQ and sales order system, adding both value and service for our customers."*

– Kevin Chase, Owner & President, Chase Plastics



### Advertising – [www.ides.com/advertise](http://www.ides.com/advertise)

Reach 365,000 pre-qualified plastics professionals and generate leads with proven techniques. Electronic newsletter insertions, sponsored webinars and powerful online ads are available to make the most of your lead-generation program.



For more information, call: 800.788.4668 or 307.742.9227 ext. 220