Plexiglas® LED 8N LD12

Polymethyl Methacrylate Acrylic

Evonik Industries AG

Message:

PLEXIGLAS® LED 8N LD12 is a highly transparent light guide material based on PLEXIGLAS® 8N.
In addition to the typical properties of PLEXIGLAS®, such as
Excellent weather resistance
UV-stability
Good flow, high mechanical strength
PLEXIGLAS® LED 8N LD12 is developed for edge lit LED applications. The light scattering properties convert the light guide to a full illuminated panel. Furthermore, the material allows for a competely transparent view through the light guide when it is not illuminated. This opens a new degree of freedom for designers.
PLEXIGLAS® LED 8N LD12 is recommended for panels with a distance of up to 12 cm between two light injecting LED strips.
Application:
Preferably, for injection molding, but can also be used for special extrusion.
Examples:
BLU (Back lighting) for LCD-Displays, illuminated freeform panels, ambient lighting, illuminated handle bars and switches. Illuminated outline contours for devices.
Processing:
PLEXIGLAS® LED 8N LD12 can be processed on injection molding machines with 3-zone general purpose screws for engineering thermoplastics.

General Information	
Features	Good Flow Good Weather Resistance High Clarity High Strength Light Stabilized
Uses	Optical Applications
Forms	Pellets
Processing Method	Extrusion Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/3.8 kg)	3.00	cm³/10min	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/m²	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
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		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]	90.0	%	ISO 13468-2
Haze	< 5.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature - Desiccant Dryer	< 98.0	°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		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China