ACRYLITE® LED 8N LD12

Polymethyl Methacrylate Acrylic

Evonik Cyro LLC

Message:

ACRYLITE® LED 8N LD12 Acrylic Molding Compound is a highly transparent light guide material based on ACRYLITE® 8N.
In addition to the typical properties of ACRYLITE®, such as
Excellent weather resistance
UV-stability
Good flow, high mechanical strength
ACRYLITE® 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. ACRYLITE® 8N LD12 is recommended for panels with a distance of up to 12 cm (4.72 in) between two light injecting LED strips.
Application:
Injection molding or extrusion.

General Information	
Features	Good Flow Good UV Resistance Good Weather Resistance High Clarity High Strength
Uses	Lighting Applications Lighting Diffusers
Agency Ratings	EC 1907/2006 (REACH)
Appearance	Clear/Transparent
Forms	Pellets
Processing Method	Extrusion Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm³	ASTM D792
Apparent Density	0.66	g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.3	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955
Water Absorption (Equilibrium)	< 0.30	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	95		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3240	MPa	ASTM D638
Tensile Strength	77.9	MPa	ASTM D638
Tensile Elongation			ASTM D638

Yield	4.0 to 6.0	%	
Break	4.0 to 6.0	%	
Flexural Modulus	3450	MPa	ASTM D790
Flexural Strength	112	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 6.35 mm)	19	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed, 6.35 mm)	100	°C	ASTM D648
Vicat Softening Temperature	108	°C	ASTM D1525
CLTE - Flow (0 to 100°C)	7.2E-5	cm/cm/°C	ASTM D696
Optical	Nominal Value	Unit	Test Method
Transmittance (3200 µm)	90.0	%	ASTM D1003
Haze (3200 µm)	5.0	%	ASTM D1003
Yellowness Index (3.20 mm)	< 1.0	YI	ASTM D1925

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

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