CALIBRE™ 301-58 LT

Trinseo - Polycarbonate Resin

Tuesday, November 5, 2019

General Information

Product Description

CALIBRE™ 301-58 LT is a high light transmission, high-flow polycarbonate resin for injection molding applications.

Main Characteristics:

- High light transmission
- High flow for injection molding
- High purity

Applications:

- LED optics
- Light guides

General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• High Flow	• High Light Transmission	• High Purity
Uses	• LEDs	• Lighting Applications	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	58	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.50 to 0.70	%	ISO 294-4
Water Absorption (24 hr, 73°F)	0.20	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	334000	psi	ISO 527-2/50
Tensile Stress (Yield)	8700	psi	ISO 527-2/50
Tensile Stress (Break)	6960	psi	ISO 527-2/50
Tensile Strain (Yield)	6.0	%	ISO 527-2/50
Tensile Strain (Break)	60	%	ISO 527-2/50
Flexural Modulus [2]	363000	psi	ISO 178
Flexural Stress [2]	14500	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (73°F)	28	ft·lb/in²	ISO 180/A
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (66 psi, Annealed)	279	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	255	°F	ISO 75-2/A
Heat Deflection Temperature (264 psi, Annealed)	273	°F	ISO 75-2/A
Vicat Softening Temperature	297	°F	ISO 306/B50

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Flammability	Nominal Value	Unit	Test Method
Flammability Classification (0.030 in)	V-2		IEC 60695-11-10, -20
Glow Wire Flammability Index [3]			IEC 60695-2-12
0.04 in	1560	°F	
0.08 in	1650	°F	
0.12 in	1760	°F	
Glow Wire Ignition Temperature [3]			IEC 60695-2-13
0.04 in	1610	°F	
0.08 in	1610	°F	

Optical	Nominal Value	Unit	Test Method
Refractive Index	1.583		ISO 489
Transmittance	> 90.0	%	ASTM D1003
Haze	< 1.00	%	ASTM D1003

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 0.079 in/min

[3] This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.