

CALIBRE™ 301EP-37

Polycarbonate Resin

Overview

CALIBRE 301EP-37 HC77010023 Polycarbonate Resin is a very high flow material designed for complex or thin-walled injection molded parts. It is useful for parts that require good surface finish, such as reflectors in lighting applications. It contains some mold release for easier release during molding. This polycarbonate material is designed for applications that use in vacuum metalized processes.

Main Characteristics

- Hi flow, easy processing material
- Good surface aesthetics
- Mold release

Applications

- Injection molding applications
- Vacuum metalized applications
- Reflectors

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm ³	1.18 g/cm ³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	37 g/10 min	37 g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage - Flow	6.0E-3 to 8.0E-3 in/in	0.60 to 0.80 %	ASTM D955
Water Absorption (24 hr, 73°F (23°C))	0.15 %	0.15 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ¹	350000 psi	2410 MPa	ASTM D638
Tensile Strength (Yield)	8500 psi	58.6 MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	5.5 %	5.5 %	
Break	85 %	85 %	
Flexural Modulus	344000 psi	2370 MPa	ASTM D790
Flexural Strength	13100 psi	90.3 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-40°F (-40°C)	8.3 ft-lb/in	440 J/m	
73°F (23°C)	10 ft-lb/in	530 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	121	121	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	251 °F	122 °C	
CLTE - Flow	4.0E-5 in/in/°F	7.2E-5 cm/cm/°C	ASTM E831 ISO 11359-2
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.5 mm)	V-2	V-2	
0.12 in (3.0 mm)	V-2	V-2	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ 2.0 in/min (50 mm/min)



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