

CALIBRE™ 303-17

Polycarbonate Resin

Overview

CALIBRE™ 303-17 Polycarbonate resin offers exceptional impact resistance and heat distortion resistance. The material contains UV stabilizer and mold release and is offered in transparent and other customized colors.

Govt. and Industry Standards

- Underwriters Laboratory, inc (UL)

Applications:

- Appliances;
- Automotive Applications;
- Business Equipment;
- Consumer Applications
- Displays
- Electrical/Electronic Applications
- Household Goods
- Lighting Applications
- Rigid Packaging
- Transparent Parts

Automotive Specifications

- GM GMW16728P-PC-T4

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.20 g/cm ³	1.20 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	17 g/10 min	17 g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3 in/in	0.50 to 0.70 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	354000 psi	2440 MPa	ISO 527-1/1
Tensile Stress			ISO 527-2/50
Yield	9280 psi	64.0 MPa	
Break	9430 psi	65.0 MPa	
Tensile Strain (Break)	110 %	110 %	ISO 527-2/50
Flexural Modulus ¹	348000 psi	2400 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	5.2 ft-lb/in ²	11 kJ/m ²	
73°F (23°C)	9.5 ft-lb/in ²	20 kJ/m ²	
Instrumented Dart Impact			
73°F (23°C), Total Energy ²	584 in-lb	66.0 J	ASTM D3763
73°F (23°C), Total Penetration Energy ³	41.3 ft-lb	56.0 J	ISO 6603-2

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	279 °F	137 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	255 °F	124 °C	ISO 75-2/A
Vicat Softening Temperature	288 °F	142 °C	ISO 306/B50
CLTE			ASTM D696
Flow : -22 to 230°F (-30 to 110°C)	4.4E-5 in/in/°F	8.0E-5 cm/cm/°C	
Transverse : -22 to 230°F (-30 to 110°C)	4.4E-5 in/in/°F	7.9E-5 cm/cm/°C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁴			UL 94
0.020 in (0.50 mm)	V-2	V-2	
0.06 in (1.6 mm)	V-2	V-2	
0.10 in (2.5 mm)	V-2	V-2	
0.12 in (3.0 mm)	V-2	V-2	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	248 °F	120 °C	
Drying Time	4.0 hr	4.0 hr	
Processing (Melt) Temp	500 to 554 °F	260 to 290 °C	
Mold Temperature	158 to 194 °F	70 to 90 °C	