

CALIBRE™ 200-3 Polycarbonate Resin

Overview

CALIBRE™ 200-3 polycarbonate resins are produced in compliance with the US Food and Drug Administration (FDA) and EU food contact regulations. This material offers exceptional impact resistance, heat distortion resistance and optical clarity as well as high melt strength for various extrusion processes. CALIBRE 200-3 contains no mold release or UV Stabilizer and is available in natural transparent colour only.

Govt. and Industry Standards:

- Europe Commission Regulation (EU) No 10/2011
- U.S. FDA 21 CFR 177.1580 (with Restrictions)
- NSF/ANSI 51 (North America Only)
- Underwriters Laboratory, Inc. (UL)

Applications:

- Blending, compounding
- Sheet, film and profile extrusion
- Appliances
- Housewares

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)	3.0 g/10 min	3.0 g/10 min	ASTM D1238 ISO 1133
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.32 %	0.32 %	
Equilibrium, 73°F (23°C), 50% RH	0.12 %	0.12 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	334000 psi	2300 MPa	ISO 527-1/1
Tensile Stress			ISO 527-2/50
Yield	8700 psi	60.0 MPa	
Break	10400 psi	72.0 MPa	
Tensile Strain			ISO 527-2/50
Yield	6.0 %	6.0 %	
Break	150 %	150 %	
Flexural Modulus ¹	348000 psi	2400 MPa	ISO 178
Flexural Stress ¹	14100 psi	97.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	6.7 ft·lb/in ²	14 kJ/m ²	
73°F (23°C)	36 ft·lb/in ²	75 kJ/m ²	
Notched Izod Impact			
73°F (23°C)	18 ft·lb/in	960 J/m	ASTM D256
73°F (23°C)	44 ft·lb/in ²	93 kJ/m ²	ISO 180/1A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi (1.8 MPa), Unannealed	259 °F	126 °C	
Vicat Softening Temperature	309 °F	154 °C	ISO 306/B50

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Refractive Index	1.586	1.586	ISO 489
Light Transmittance	87.0 to 91.0 %	87.0 to 91.0 %	ASTM D1003
Haze	< 1.00 %	< 1.00 %	ASTM D1003

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	4.0 hr	4.0 hr