

CALIBRE™ 2061SP-15

Polycarbonate Resin

Overview

CALIBRE™ 2061SP-15 is a medical grade polycarbonate resin containing silicone and PTFE. This resin is designed to have reduced coefficient of friction and improved wear properties. CALIBRE 2061SP-15 has been tested according to ISO 10993 (Biological Evaluation of Medical Devices). It is suitable for radiation, ethylene oxide, and steam sterilization as needed in the health care industry.

Main Characteristics:

- Tested under ISO 10993
- Lubricious
- Wear Resistant

Applications:

- Medical applications
- Surgical Device Handles
- Drug Delivery Devices

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.26 g/cm ³	1.26 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15 g/10 min	15 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
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- ¹	305000 psi	2100 MPa	ASTM D638
--	297000 psi	2050 MPa	ISO 527-1/1
Tensile Strength			
Yield ²	7100 psi	49.0 MPa	ASTM D638
Yield	7110 psi	49.0 MPa	ISO 527-2/50
Break ²	6300 psi	43.4 MPa	ASTM D638
Break	6380 psi	44.0 MPa	ISO 527-2/50
Tensile Elongation			
Yield ²	5.3 %	5.3 %	ASTM D638
Yield	5.2 %	5.2 %	ISO 527-2/50
Break ²	45 %	45 %	ASTM D638
Break	50 %	50 %	ISO 527-2/50
Flexural Modulus			
--	326000 psi	2250 MPa	ASTM D790
-- ³	312000 psi	2150 MPa	ISO 178
Flexural Strength			
--	11200 psi	77.0 MPa	ASTM D790
-- ³	10600 psi	73.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			
73°F (23°C)	5.6 ft-lb/in	300 J/m	ASTM D256
73°F (23°C)	20 ft-lb/in ²	42 kJ/m ²	ISO 180/1A
Instrumented Dart Impact ⁴			ASTM D3763
73°F (23°C), Total Energy	221 in-lb	25.0 J	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	279 °F	137 °C	ASTM D648 ISO 75-2/B
264 psi (1.8 MPa), Unannealed	250 °F	121 °C	ASTM D648 ISO 75-2/A
Vicat Softening Temperature			
--	302 °F	150 °C	ASTM D1525 ⁵
--	289 °F	143 °C	ISO 306/B50
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	248 °F	120 °C	
Drying Time	4.0 hr	4.0 hr	
Suggested Max Moisture	0.020 %	0.020 %	
Processing (Melt) Temp	572 to 599 °F	300 to 315 °C	
Mold Temperature	176 to 230 °F	80 to 110 °C	