

Technical Information



CALIBRE™ 2061S-22

Polycarbonate Resin

Overview

CALIBRE™ 2061S-22 is a medical grade polycarbonate resin containing silicone. This resin is designed to have easy flow and reduced coefficient of friction for applications where lubricity is important. CALIBRE 2061S-22 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
- Easy Flow

Applications:

- Medical applications
- Surgical Device Handles
- Drug Delivery Devices

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.19 g/cm ³	1.19 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22 g/10 min	22 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	312000 psi	2150 MPa	ASTM D638
--	310000 psi	2140 MPa	ISO 527-1/1
Tensile Strength			
Yield ²	8430 psi	58.1 MPa	ASTM D638
Yield	8410 psi	58.0 MPa	ISO 527-2/50
Break ²	8800 psi	60.7 MPa	ASTM D638
Break	8600 psi	59.3 MPa	ISO 527-2/50
Tensile Elongation			
Yield ²	6.5 %	6.5 %	ASTM D638
Yield	6.5 %	6.5 %	ISO 527-2/50
Break ²	95 %	95 %	ASTM D638
Break	100 %	100 %	ISO 527-2/50
Flexural Modulus	328000 psi	2260 MPa	ASTM D790
Flexural Strength	9570 psi	66.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			
73°F (23°C)	7.5 ft-lb/in	400 J/m	ASTM D256
73°F (23°C)	9.5 ft-lb/in ²	20 kJ/m ²	ISO 180/1A
Instrumented Dart Impact ³			ASTM D3763
73°F (23°C), Total Energy	354 in-lb	40.0 J	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	280 °F	138 °C	ASTM D648 ISO 75-2/B
264 psi (1.8 MPa), Unannealed	255 °F	124 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	253 °F	123 °C	ISO 75-2/A
Vicat Softening Temperature			
--	302 °F	150 °C	ASTM D1525 ⁴
--	291 °F	144 °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	518 to 599 °F	270 to 315 °C	
Mold Temperature	176 to 212 °F	80 to 100 °C	

Notes

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

¹ 0.039 in/min (1.0 mm/min)

² 2.0 in/min (50 mm/min)

³ 21.7 ft/sec (6.60 m/sec)

⁴ Rate B (120°C/h), Loading 1 (10 N)

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