

CALIBRE™ 2061-6

Polycarbonate Resin

Trinseo

Message:

CALIBRE™ 2061-6 resin is suitable for steam and ethylene oxide sterilization required by the health care industry. CALIBRE 2061-6 provides excellent heat resistance, impact strength, and processability. CALIBRE 2061-6 resin is compliant with ISO 10993 (Biological Evaluation of Medical Devices) and is suitable for use in approved medical applications. This product contains mold release and is currently available in black color.

Main Characteristics:
Tested under ISO 10993
Applications:
Medical applications

General Information			
UL YellowCard	E54680-101090285		
Additive	Mold Release		
Features	Ethylene Oxide Sterilizable		
	Good Processability		
	High Heat Resistance		
	High Impact Resistance		
	Steam Sterilizable		
Uses	Medical/Healthcare Applications		
Agency Ratings	ISO 10993 3		
Appearance	Black		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Water Absorption			ASTM D570
23°C, 24 hr	0.15	%	
Equilibrium, 23°C, 50% RH	0.32	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	73		
R-Scale	118		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	2410	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	62.1	MPa	
Break	68.3	MPa	

Tensile Elongation ³			ASTM D638
Yield	6.0	%	
Break	150	%	
Flexural Modulus ⁴	2410	MPa	ASTM D790
Flexural Strength ⁵	96.5	MPa	ASTM D790
Taber Abrasion Resistance	45	%	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	850	J/m	ASTM D256
Unnotched Izod Impact (23°C)	No Break		ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	89.3	J	ASTM D3763
Tensile Impact Strength (23°C)	567	kJ/m ²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Annealed	145	°C	
1.8 MPa, Unannealed	129	°C	
1.8 MPa, Annealed	142	°C	
Vicat Softening Temperature	156	°C	ASTM D1525 ⁶
CLTE - Flow (-40 to 82°C)	6.8E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.0E+17	ohms · cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.00		
1 MHz	3.00		
Dissipation Factor			ASTM D150
50 Hz	1.0E-3		
1 MHz	2.0E-3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
3.00 mm	HB		
0.750 mm	V-2		
1.50 mm	V-2		
Oxygen Index ⁷	26	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Max Regrind	25	%	
Rear Temperature	271 to 288	°C	
Middle Temperature	277 to 299	°C	
Front Temperature	299 to 327	°C	

Nozzle Temperature	299 to 327	°C
Processing (Melt) Temp	299 to 327	°C
Mold Temperature	76.7 to 110	°C
Screw Speed	40 to 70	rpm
Clamp Tonnage	2.8 to 6.9	kN/cm ²
Screw L/D Ratio	15.0:1.0	
Screw Compression Ratio	1.5:1.0 to 3.0:1.0	

NOTE		
1.	51 mm/min	
2.	51 mm/min	
3.	51 mm/min	
4.	Method I (3 point load), 2.0 mm/min	
5.	Method I (3 point load), 2.0 mm/min	
6.	Rate A (50°C/h), Loading 2 (50 N)	
7.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.	

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