

CALIBRE™ 2061-22

Polycarbonate Resin
Trinseo

Message:

CALIBRE™ 2061-22 resin is suitable for steam and ethylene oxide sterilization required by the health care industry. CALIBRE 2061-22 provides exceptional clarity, heat resistance, impact strength and processability, and has low contamination levels. CALIBRE 2061-22 resin has undergone biocompatibility testing based on ISO 10993 (Biological Evaluation of Medical Devices) and is suitable for use in approved medical applications. This product contains mold release.

Main Characteristics:
Tested under ISO 10993
Applications:
Medical applications

General Information	
UL YellowCard	E54680-101090285
Additive	Mold Release
Features	Biocompatible
	Ethylene Oxide Sterilizable
	Good Processability
	High Clarity
	High Heat Resistance
	High Impact Resistance
	Steam Sterilizable
Uses	Medical/Healthcare Applications
Agency Ratings	ISO 10993 3
Forms	Pellets
Processing Method	Injection Molding
Multi-Point Data	Specific Heat vs. Temperature (ASTM D3417)
	Specific Volume vs Temperature (ISO 11403-2)
	Tensile Stress vs. Strain (ASTM D638)
	Thermal Conductivity vs. Temperature (ASTM E1530)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ASTM D1238, ISO 1133
Water Absorption			ASTM D570, ISO 62
23°C, 24 hr	0.15	%	
Equilibrium, 23°C, 50% RH	0.32	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method

Tensile Modulus			
-- ¹	2340	MPa	ASTM D638
--	2340	MPa	ISO 527-2/50
Tensile Strength			
Yield ²	60.0	MPa	ASTM D638
Yield	60.0	MPa	ISO 527-2/50
Break ³	65.5	MPa	ASTM D638
Break	66.0	MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	120	%	ASTM D638
Break	120	%	ISO 527-2/50
Flexural Modulus			
-- ⁵	2410	MPa	ASTM D790
-- ⁶	2410	MPa	ISO 178
Flexural Strength			
-- ⁷	96.5	MPa	ASTM D790
-- ⁸	96.5	MPa	ISO 178
Taber Abrasion Resistance	45	%	ASTM D1044
Average Extent of Burning	3	cm	ASTM D635
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	750	J/m	ASTM D256
23°C	73	kJ/m ²	ISO 180/A
Instrumented Dart Impact ⁹ (23°C, Total Energy)	72.3	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Annealed	142	°C	ASTM D648, ISO 75-2/B
1.8 MPa, Unannealed	126	°C	ASTM D648, ISO 75-2/A
1.8 MPa, Annealed	126	°C	ASTM D648, ISO 75-2/A
Vicat Softening Temperature	152	°C	ISO 306/B50, ASTM D1525 ¹⁰
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, IEC 60243-1
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
1.50 mm ¹¹	HB		
3.00 mm	HB		
0.750 mm	V-2		
1.50 mm	V-2		
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ASTM D542, ISO 489
Transmittance	89.0	%	ASTM D1003
Haze	1.0	%	ASTM D1003
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	50 mm/min		
4.	50 mm/min		
5.	Method I (3 point load), 2.0 mm/min		
6.	2.0 mm/min		
7.	Method I (3 point load), 2.0 mm/min		
8.	2.0 mm/min		
9.	3.39 m/sec		
10.	Rate A (50°C/h), Loading 2 (50 N)		
11.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		

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