CALIBRE™ 2061-22
Polycarbonate Resin

Overview

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

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	22	g/10 min	ASTM D1238 ISO 1133
Water Absorption					ASTM D570 ISO 62
24 hr, 73°F (23°C)	0.15	%	0.15	%	
Equilibrium, 73°F (23°C), 50% RH	0.32	%	0.32	%	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					
-- [1]	339000	psi	2340	MPa	ASTM D638
--	339000	psi	2340	MPa	ISO 527-2/1
Tensile Strength					
Yield [2]	8700	psi	60.0	MPa	ASTM D638
Yield	8700	psi	60.0	MPa	ISO 527-2/50
Break [2]	9500	psi	65.5	MPa	ASTM D638
Break	9570	psi	66.0	MPa	ISO 527-2/50
Tensile Elongation					
Break [2]	120	%	120	%	ASTM D638
Break	120	%	120	%	ISO 527-2/50
Flexural Modulus					
-- [3]	350000	psi	2410	MPa	ASTM D790
-- [4]	350000	psi	2410	MPa	ISO 178
Flexural Strength					
-- [3]	14000	psi	96.5	MPa	ASTM D790
-- [4]	14000	psi	96.5	MPa	ISO 178
Taber Abrasion Resistance	45	%	45	%	ASTM D1044
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact					
73°F (23°C)	14	ft·lb/in	750	J/m	ASTM D256
73°F (23°C)	35	ft·lb/in²	73	kJ/m²	ISO 180/A
Instrumented Dart Impact [5]					ASTM D3763
73°F (23°C), Total Energy	640	in·lb	72.3	J	
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Rockwell Hardness (R-Scale)	118		118		ASTM D785

Thermal	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Deflection Temperature Under Load					
66 psi (0.45 MPa), Annealed	288	°F	142	°C	ASTM D648 ISO 75-2/B
264 psi (1.8 MPa), Unannealed	259	°F	126	°C	ASTM D648 ISO 75-2/A
264 psi (1.8 MPa), Annealed	258	°F	126	°C	ASTM D648 ISO 75-2/A
Vicat Softening Temperature	306	°F	152	°C	ISO 306/B50 ASTM D1525 [6]
CLTE - Flow (-40 to 180°F (-40 to 82°C))	3.8E-5	in/in/°F	6.8E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Volume Resistivity	2.0E+17	ohms·cm	2.0E+17	ohms·cm	ASTM D257
Dielectric Strength					
--	420	V/mil	17	kV/mm	ASTM D149
--	430	V/mil	17	kV/mm	IEC 60243-1
Dielectric Constant					ASTM D150
60 Hz	3.00		3.00		
1 MHz	3.00		3.00		
Dissipation Factor					ASTM D150
50 Hz	1.0E-3		1.0E-3		
1 MHz	2.0E-3		2.0E-3		
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Flame Rating					UL 94
0.06 in (1.5 mm) [7]	HB		HB		
0.12 in (3.0 mm)	HB		HB		
0.030 in (0.75 mm)	V-2		V-2		
0.06 in (1.5 mm)	V-2		V-2		
Average Extent of Burning	1	in	3	cm	ASTM D635
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Refractive Index	1.586		1.586		ASTM D542 ISO 489
Transmittance	89.0	%	89.0	%	ASTM D1003
Haze	1.00	%	1.00	%	ASTM D1003

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] Method I (3 point load), 0.079 in/min (2.0 mm/min)

[4] 0.079 in/min (2.0 mm/min)

[5] 11.1 ft/sec (3.39 m/sec)

[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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