CALIBRE™ 5201-8
Polycarbonate Resin

Overview

CALIBRE™ 5201-8 polycarbonate resin is 20% glass reinforced containing mold release for optimal processing. This resin exhibits high modulus and excellent dimensional stability. CALIBRE 5201-8 resin is typically used in electrical market applications. CALIBRE 5201-8 resin has undergone biocompatibility testing based on ISO 10993 (Biological Evaluation of Medical Devices) and is suitable for use in approved medical applications.

Main Characteristics:

- Glass reinforced
- Ignition resistant
- Tested under ISO 10993

Applications:

- Electrical boxes
- Lighting components
- Electrical connectors
- Medical applications

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.36	g/cm³	1.36	g/cm³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	8.0	g/10 min	8.0	g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	0.20 to 0.40	%	ASTM D955 ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					
-- [1]	750000	psi	5170	MPa	ASTM D638
--	750000	psi	5170	MPa	ISO 527-2/50
Tensile Strength					
Yield [1]	12000	psi	82.7	MPa	ASTM D638
Yield	12000	psi	83.0	MPa	ISO 527-2/50
Break [1]	12000	psi	82.7	MPa	ASTM D638
Break	12000	psi	83.0	MPa	ISO 527-2/50
Tensile Elongation					
Yield [1]	2.6	%	2.6	%	ASTM D638
Yield	2.6	%	2.6	%	ISO 527-2/50
Break [1]	3.0	%	3.0	%	ASTM D638
Break	3.0	%	3.0	%	ISO 527-2/50
Flexural Modulus					
-- [2]	700000	psi	4830	MPa	ASTM D790
-- [3]	699000	psi	4820	MPa	ISO 178
Flexural Strength					
-- [2]	21500	psi	148	MPa	ASTM D790
-- [3]	21500	psi	148	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact (73°F (23°C))	2.0	ft·lb/in	110	J/m	ASTM D256
Instrumented Dart Impact [4]					ASTM D3763
73°F (23°C), Total Energy	410	in·lb	46.3	J	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	122	122	ASTM D785
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 psi (0.45 MPa), Annealed	299 °F	148 °C	ASTM D648
66 psi (0.45 MPa), Annealed	298 °F	148 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	280 °F	138 °C	ASTM D648 ISO 75-2/A
264 psi (1.8 MPa), Annealed	288 °F	142 °C	ASTM D648 ISO 75-2/A
Vicat Softening Temperature			
--	318 °F	159 °C	ASTM D1525 [5]
--	316 °F	158 °C	ISO 306/B50
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating [6]			UL 94
0.06 in (1.6 mm)	V-2	V-2	
0.12 in (3.0 mm)	V-0	V-0	

Notes

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

[1] 2.0 in/min (50 mm/min)

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

[3] 0.079 in/min (2.0 mm/min)

[4] 11.1 ft/sec (3.39 m/sec)

[5] Rate A (50°C/h), Loading 2 (50 N)

[6] This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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