CALIBRE™ IM 401-11
Polycarbonate Resin

Overview

CALIBRE™ IM 401-11 Impact Modified Polycarbonate resin is available in opaque formulations that offer benefits ranging from superior low temperature impact strength to easy processing with improved impact strength in highly filled formulations.

Main Characteristics:

- Impact modified
- Superior low temperature toughness

Applications:

- Automotive interiors
- Automotive exteriors
- Small & large applications

Automotive Specifications

- FORD ESB-M4D100-C1
- GM GMP.PC.003

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.18	g/cm³	1.18	g/cm³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	11	g/10 min	11	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 ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength					
Yield [1]	8100	psi	55.8	MPa	ASTM D638
Yield	8120	psi	56.0	MPa	ISO 527-2/50
Tensile Elongation					
Break [1]	130	%	130	%	ASTM D638
Break	130	%	130	%	ISO 527-2/50
Flexural Modulus					
-- [2]	330000	psi	2280	MPa	ASTM D790
-- [3, 4]	329000	psi	2270	MPa	ISO 178
Flexural Strength					
-- [2]	13000	psi	89.6	MPa	ASTM D790
-- [3, 4]	13100	psi	90.0	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact (73°F (23°C))	13	ft·lb/in	690	J/m	ASTM D256 ISO 180/4A
Instrumented Dart Impact [5]					ASTM D3763
73°F (23°C), Total Energy	500	in·lb	56.5	J	
Tensile Impact Strength	300	ft·lb/in²	630	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648 ISO 75-2/A
264 psi (1.8 MPa), Unannealed	250	°F	121	°C	
264 psi (1.8 MPa), Annealed	277	°F	136	°C	
Vicat Softening Temperature	295	°F	146	°C	ISO 306/B50 ASTM D1525 [6]

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating [7]			UL 94
0.06 in (1.6 mm)	HB	HB	
0.13 in (3.2 mm)	HB	HB	

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] 3-points

[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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