

Technical Information



CALIBRE™ EV20 E70 Advanced Resin

Overview

CALIBRE™ EV20 E70 Advanced Resin is a specially designed Polycarbonate blends containing 70% post-consumer recycled(PCR) content. It combines high flow, high heat, high mechanical and high gloss together. It has excellent fire resistance and process stability. CALIBRE™ EV20 E70 Advanced Resin can be used in a wide application field where aesthetics, fire resistance and mechanical reliability are required. It does not contain Chlorine and Bromine additives.CALIBRE™ EV20 E70 has a UL94 V-0 rating at 1.0 mm.

Applications:

- Battery module top cover
- Wire harness isolation plate

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	14 g/10 min	14 g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ¹	348000 psi	2400 MPa	ASTM D638
Tensile Strength ² (Yield)	8700 psi	60.0 MPa	ASTM D638
Tensile Elongation ²			ASTM D638
Yield	4.5 %	4.5 %	
Break	80 %	80 %	
Flexural Modulus ³	384000 psi	2650 MPa	ASTM D790
Flexural Strength ³	13800 psi	95.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	12 ft-lb/in	620 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	194 °F	90.0 °C	ASTM D648
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁴			UL 94
0.020 in (0.50 mm)	V-2	V-2	
0.04 in (1.0 mm)	V-0	V-0	
0.12 in (3.0 mm)	V-0	V-0	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	194 to 212 °F	90 to 100 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Processing (Melt) Temp	464 to 563 °F	240 to 295 °C	
Mold Temperature	158 to 212 °F	70 to 100 °C	

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 0.051 in/min (1.3 mm/min)

⁴ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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