

EMERGE™ PC 8130-10

Advanced Resin

Overview

EMERGE™ PC 8130 Advanced Resin is an ignition-resistant polycarbonate resin with improved UV stability. It is designed for thin-wall applications and has a UL94 V-0 rating at 1.0 mm. EMERGE PC 8130 is also f1 rated according to UL 746C. This resin does not contain chlorine or bromine additives.

Main Characteristics:

- Ignition resistant
- UV resistant

Applications:

- Powered Device Housings
- Information technology equipment
- Electrical parts

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.20 g/cm ³	1.20 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10 g/10 min	10 g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3 in/in	0.50 to 0.70 %	ASTM D955
Water Absorption (24 hr, 73°F (23°C))	0.15 %	0.15 %	ASTM D570
Outdoor Suitability	f1	f1	UL 746C
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	345000 psi	2380 MPa	ASTM D638
Tensile Strength			
Yield	8910 psi	61.4 MPa	ASTM D638
Yield	8850 psi	61.0 MPa	ISO 527-2/50
Break	8500 psi	58.6 MPa	ASTM D638
Break	8560 psi	59.0 MPa	ISO 527-2/50
Tensile Elongation			ASTM D638
Yield	6.0 %	6.0 %	
Break	120 %	120 %	
Flexural Modulus	338000 psi	2330 MPa	ASTM D790
Flexural Strength	14200 psi	97.9 MPa	ASTM D790
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
Instrumented Dart Impact	550 in-lb	62.1 J	ASTM D3763
Tensile Impact Strength	300 ft-lb/in ²	630 kJ/m ²	ASTM D1822
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.252 in (6.40 mm)	279 °F	137 °C	
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	261 °F	127 °C	
Vicat Softening Temperature	304 °F	151 °C	ASTM D1525
CLTE - Flow	3.6E-5 in/in/°F	6.5E-5 cm/cm/°C	ASTM D696
RTI Elec	266 °F	130 °C	UL 746
RTI Imp	239 °F	115 °C	UL 746
RTI Str	266 °F	130 °C	UL 746

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Arc Resistance	PLC 7	PLC 7	ASTM D495
Comparative Tracking Index (CTI)	PLC 2	PLC 2	UL 746
High Amp Arc Ignition (HAI)			UL 746
0.03 in (0.9 mm)	PLC 2	PLC 2	
0.04 to 0.12 in (1.0 to 3.0 mm)	PLC 1	PLC 1	
High Voltage Arc Resistance to Ignition (HVAR)	PLC 1	PLC 1	UL 746
Hot-wire Ignition (HWI)			UL 746
0.03 to 0.12 in (0.9 to 3.0 mm)	PLC 2	PLC 2	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹			Trinseo Method
0.03 in (0.9 mm), all	V-1	V-1	
0.03 in (0.9 mm), wt, black	V-0	V-0	
0.04 in (1.0 mm), all	V-0	V-0	
0.08 in (2.0 mm), all	5VB	5VB	
0.12 in (3.0 mm), all	5VA	5VA	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	250 °F	121 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Processing (Melt) Temp	550 to 575 °F	288 to 302 °C	

Notes

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

¹ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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