EMERGE™ PC 8130-15
Advanced Resin

Overview

EMERGE™ PC 8130-15 advanced resin is an opaque, ignition resistant PC resin that contains no chlorinated or brominated or phosphorous based additives. This resin contains mould release and it is UV stabilized. It combines good mechanical and high heat properties and maintains excellent processability. EMERGE™ PC 8130-15 has a UL 94 V-0 rating at 1.0 mm.

Applications:

- Electrical
- Electronics

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	15	g/10 min	ISO 1133
Molding Shrinkage	5.0E-3 to 7.0E-3	in/in	0.50 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	348000	psi	2400	MPa	ISO 527-2/1
Tensile Stress					ISO 527-2/50
Yield	8990	psi	62.0	MPa	
Break	8700	psi	60.0	MPa	
Tensile Strain (Break)	110	%	110	%	ISO 527-2/50
Flexural Modulus [1]	341000	psi	2350	MPa	ISO 178
Flexural Stress [1]	13800	psi	95.0	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength (73°F (23°C))	12	ft·lb/in²	25	kJ/m²	ISO 179/1eA
Notched Izod Impact Strength (73°F (23°C))	31	ft·lb/in²	65	kJ/m²	ISO 180/A
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Rockwell Hardness					ISO 2039-2
M-Scale	73		73		
R-Scale	118		118		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Heat Deflection Temperature					
66 psi (0.45 MPa), Annealed	288	°F	142	°C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	253	°F	123	°C	ISO 75-2/A
264 psi (1.8 MPa), Annealed	282	°F	139	°C	ISO 75-2/A
Vicat Softening Temperature	295	°F	146	°C	ISO 306/B50
Ball Indentation Temperature	> 257	°F	> 125	°C	IEC 60335-1
CLTE - Flow	3.9E-5	in/in/°F	7.0E-5	cm/cm/°C	ISO 11359-2

Electrical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Surface Resistivity	> 1.0E+15	ohms	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	430	V/mil	17	kV/mm	IEC 60243-1
Dielectric Constant					IEC 60250
1 Hz	2.70		2.70		
50 Hz	2.70		2.70		
Dissipation Factor					IEC 60250
1 Hz	1.0E-3		1.0E-3		
50 Hz	1.0E-3		1.0E-3		
Comparative Tracking Index (Solution A)	225	V	225	V	IEC 60112
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Flame Rating [2]					UL 94
0.04 in (1.0 mm)	V-0		V-0		
0.08 in (2.0 mm)	5VB		5VB		
0.12 in (3.0 mm)	5VA		5VA		
Glow Wire Flammability Index [2]					IEC 60695-2-12
0.04 in (1.0 mm)	1760	°F	960	°C	
0.08 in (2.0 mm)	1760	°F	960	°C	
0.12 in (3.0 mm)	1760	°F	960	°C	
Glow Wire Ignition Temperature [2]					IEC 60695-2-13
0.04 in (1.0 mm)	1560	°F	850	°C	
0.08 in (2.0 mm)	1560	°F	850	°C	
0.12 in (3.0 mm)	1560	°F	850	°C	
Oxygen Index [2]	40	%	40	%	ISO 4589-2

Injection	Nominal Value	(English)	Nominal Value	(SI)
Drying Temperature	248	°F	120	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Processing (Melt) Temp	500 to 572	°F	260 to 300	°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] 0.079 in/min (2.0 mm/min)

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

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