

EMERGE™ PC 8030-15

Advanced Resin

Trinseo

Message:

EMERGE™ PC 8030-15 advanced resin is an opaque, ignition resistant PC resin that contains no chlorinated or brominated or phosphorous based additives. This resin combines good mechanical and high heat properties and maintains excellent processability. EMERGE™ PC 8030-15 has a UL 94 V-0 rating at 0.85 mm.

Applications:

Electrical

Electronics

General Information			
Features	Chlorine Free		
	Workability, good		
	Phosphorus content, low (to none)		
	Heat resistance, high		
	Bromine-free		
	Flame retardancy		
Uses	Electrical/Electronic Applications		
Appearance	Opacity		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	ISO 1133
Molding Shrinkage	0.50 - 0.70	%	ISO 294-4
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M scale	73		ISO 2039-2
R scale	118		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	62.0	MPa	ISO 527-2/50
Fracture	60.0	MPa	ISO 527-2/50
Tensile Strain (Break)	110	%	ISO 527-2/50
Flexural Modulus ¹	2350	MPa	ISO 178
Flexural Stress ²	95.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	25	kJ/m ²	ISO 179/1eA
Notched Izod Impact (23°C)	65	kJ/m ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method

Heat Deflection Temperature			
0.45 MPa, annealed	142	°C	ISO 75-2/B
1.8 MPa, not annealed	123	°C	ISO 75-2/A
1.8 MPa, annealed	139	°C	ISO 75-2/A
Vicat Softening Temperature	146	°C	ISO 306/B50
Ball Indentation Temperature	> 125	°C	IEC 60335-1
CLTE - Flow	7.0E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength	17	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
1 Hz	2.70		IEC 60250
50 Hz	2.70		IEC 60250
Dissipation Factor			IEC 60250
1 Hz	1.0E-3		IEC 60250
50 Hz	1.0E-3		IEC 60250
Comparative Tracking Index (Solution A)	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.9 mm ³	V-0		UL 94
1.0 mm ⁴	V-0		UL 94
2.0 mm ⁵	5VB		UL 94
3.0 mm ⁶	5VA		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
1.0 mm ⁷	960	°C	IEC 60695-2-12
2.0 mm ⁸	960	°C	IEC 60695-2-12
3.0 mm ⁹	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature ¹⁰			IEC 60695-2-13
1.0 mm	850	°C	IEC 60695-2-13
2.0 mm	850	°C	IEC 60695-2-13
3.0 mm	850	°C	IEC 60695-2-13
Oxygen Index ¹¹	40	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	3.0 - 4.0	hr	
Processing (Melt) Temp	260 - 300	°C	
Mold Temperature	70 - 100	°C	
NOTE			
1.	2.0 mm/min		
2.	2.0 mm/min		

3.	This rating is not intended to reflect the danger caused by this or any other material under actual fire conditions.
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