

EMERGE™ PC 8110-15

Advanced Resin

Trinseo

Message:

EMERGE™ PC 8110-15 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 and contains mould release agent. EMERGE™ PC 8110-15 has a UL 94 V-0 rating at 1.0 mm.

Applications:

Electrical

Electronics

General Information			
UL YellowCard	E54680-100958203	E206114-100958194	E213639-100958177
Additive	Mold Release		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Processability		
	High Heat Resistance		
Uses	Electrical/Electronic Applications		
Appearance	Opaque		
Forms	Pellets		
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 to 0.70	%	ISO 294-4
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	73		
R-Scale	118		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	62.0	MPa	
Break	60.0	MPa	
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 Strength (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, Unannealed	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
Electric Strength	17	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
1 Hz	2.70		
50 Hz	2.70		
Dissipation Factor			IEC 60250
1 Hz	1.0E-3		
50 Hz	1.0E-3		
Comparative Tracking Index (Solution A)	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating ³			UL 94
1.00 mm	V-0		
	V-0		
2.00 mm	5VB		
	V-0		
3.00 mm	5VA		
Glow Wire Flammability Index ⁴			IEC 60695-2-12
1.00 mm	960	°C	
2.00 mm	960	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature ⁵			IEC 60695-2-13
1.00 mm	850	°C	
2.00 mm	850	°C	
3.00 mm	850	°C	
Oxygen Index ⁶	40	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	

Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	260 to 300	°C
Mold Temperature	70.0 to 100	°C

NOTE		
1.	2.0 mm/min	
2.	2.0 mm/min	
3.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.	
4.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.	
5.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.	
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