

EMERGE™ PC 8210-22

Advanced Resin

Trinseo

Message:

Emerge™ 8210-22 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, maintains excellent processability and contains mold release agent. Emerge 8210-22 has a UL94 V0 rating at 1.5mm.

Applications:

A broad range of injection molded applications in the lighting, electronics, electrical and information technology equipment markets.

General Information			
UL YellowCard	E206114-100173341	E213639-100173349	E54680-101960390
Additive	Mold Release		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Processability		
	High Heat Resistance		
Uses	Electrical/Electronic Applications		
	Lighting Applications		
Appearance	Opaque		
Forms	Pellets		
Processing Method	Injection Molding		
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)	22	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	60.0	MPa	
Break	58.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	100	%	

Flexural Modulus	2350	MPa	ISO 178
Flexural Stress	95.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	20	kJ/m ²	ISO 179/1eA
Notched Izod Impact Strength (23°C)	60	kJ/m ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Annealed	140	°C	ISO 75-2/B
1.8 MPa, Unannealed	123	°C	ISO 75-2/A
1.8 MPa, Annealed	137	°C	ISO 75-2/A
Vicat Softening Temperature	143	°C	ISO 306/B50
Ball Indentation Temperature	> 125	°C	IEC 60335-1
CLTE - Flow	7.0E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Flame Rating ¹			UL 94
1.50 mm	V-0		
	V-0		
3.00 mm	5VA		
Glow Wire Flammability Index ²			IEC 60695-2-12
1.00 mm	960	°C	
2.00 mm	960	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature ³			IEC 60695-2-13
1.00 mm	800	°C	
2.00 mm	800	°C	
3.00 mm	800	°C	
Oxygen Index ⁴	40	%	ISO 4589-2
Needle Flame Test ⁵ (1.50 mm)	PASS		IEC 60695-2-2
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.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		
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3.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.
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