

# EMERGE™ PC 8310-10 (AP)

Advanced Resin

Trinseo

Message:

EMERGE\* PC 8310-10 advanced resin is a transparent and ignition resistant PC resin that contains no chlorinated or brominated nor phosphorous-based additives. It is a transparent material with UL-94 V-0 rating at 2.5 mm.

- Applications:
- Information Technology Equipment
  - Sockets, Plugs and Switches
  - Lighting

General Information			
UL YellowCard	E54680-101960395		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
Uses	Lighting Applications		
Appearance	Clear/Transparent		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (3.20 mm, Injection Molded)	2400	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield, 3.20 mm, Injection Molded	60.0	MPa	
Break, 3.20 mm, Injection Molded	66.0	MPa	
Tensile Elongation			ASTM D638
Yield, 3.20 mm, Injection Molded	6.0	%	
Break, 3.20 mm, Injection Molded	120	%	
Flexural Modulus (3.20 mm, Injection Molded)	2400	MPa	ASTM D790
Flexural Strength (3.20 mm, Compression Molded)	100	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.20 mm, Injection Molded)	900	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	128	°C	

1.8 MPa, Annealed	142	°C	
Vicat Softening Temperature	152	°C	ASTM D1525 <sup>1</sup>
CLTE - Flow (-40 to 82°C)	6.8E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value		Test Method
Flame Rating <sup>2</sup>			UL 94
1.50 mm	V-2		
2.50 mm	V-0		
Optical	Nominal Value	Unit	Test Method
Transmittance	84.0 to 87.0	%	ASTM D1003
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. Rate A (50°C/h), Loading 2 (50 N)

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

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#### Recommended distributors for this material

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