EMERGE™ PC 8410-15

Advanced Resin

Trinseo

Message:

EMERGE™ PC 8410-15 advanced resin is a transparent, ignition resistant PC resin that contains no chlorinated or brominated or phosphorous based additives. The resin is designed to meet the German norm DIN VDE-0472/Part 815 on halogens. This resin combines good mechanical and high heat properties and maintains excellent processability contains mould release agent. EMERGE ™ PC 8410-15 has a UL 94 V-0 rating at 1.8 mm.
Applications:
Electrical
Fixtures
Enclosures
Displays
Lighting

General Information			
UL YellowCard	E206114-100173345	E206114-101025745	E213639-100173353
	E54680-101960397		
Additive	Mold Release		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Processability		
	High Heat Resistance		
Uses	Electrical/Electronic Applications		
	Housings		
	Lighting Applications		
Agency Ratings	DIN VDE 0472 Part 815		
Appearance	Clear/Transparent		
Forms	Pellets		

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.50 to 0.70	%	ISO 294-4

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	60.0	MPa	
Break	70.0	MPa	
Tensile Strain			ISO 527-2
Yield	6.0	%	
Break	110	%	

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)	25	kJ/m²	ISO 179/1eA
Notched Izod Impact Strength (23°C)	65	kJ/m²	ISO 180/A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Annealed	143	°C	ISO 75-2/B
1.8 MPa, Unannealed	124	°C	ISO 75-2/A
1.8 MPa, Annealed	140	°C	ISO 75-2/A
Vicat Softening Temperature	148	°C	ISO 306/B50
Ball Indentation Temperature	> 125	°C	IEC 60335-1
CLTE - Flow	7.0E-5	cm/cm/°C	ASTM D696
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			UL 94
0.750 mm [1]	V-2		
1.50 mm [2]	V-2		
1.80 mm	V-0		
3.00 mm [3]	V-0		
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	800	°C	
2.00 mm	800	°C	
3.00 mm	800	°C	
Oxygen Index [6]	40	%	ISO 4589-2
Optical	**Nominal Value**	**Unit**	**Test Method**
Transmittance	87.0 to 91.0	%	ASTM D1003
Injection	**Nominal Value**	**Unit**	

Drying Temperature	120	°C
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	> 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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5.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.
6.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

Recommended distributors for this material

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