

EMERGE™ PC 8701HH

Advanced Resin

Trinseo

Message:

EMERGE™ PC 8701HH Advanced Resin is an ignition-resistant, glass reinforced, polycarbonate resin. This resin contains no bromine, chlorine, or phosphate additives. It is a medium flow PC resin with a mold release system, intended for injection molding applications. EMERGE™ PC 8701HH has a UL 94 V-0 rating at 1.5 mm.

Applications:

- Electrical
- Utility [Smart] Meters
- Structural parts

General Information			
UL YellowCard	E54680-100753000	E206114-100752985	E213639-100752984
Filler / Reinforcement	Glass Fiber, 12% Filler by Weight		
Additive	Mold Release		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Medium Flow		
Uses	Electrical/Electronic Applications		
	Structural Parts		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.28	g/cm ³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	8.0	g/10 min	ISO 1133
Molding Shrinkage	0.40 to 0.60	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4350	MPa	ISO 527-2/50
Tensile Stress (Yield)	85.0	MPa	ISO 527-2/50
Tensile Strain (Break)	10	%	ISO 527-2/50
Flexural Modulus ¹	4100	MPa	ISO 178
Flexural Stress ²	139	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact Strength (23°C)	7.0	kJ/m ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	137	°C	ISO 75-2/A

Vicat Softening Temperature	146	°C	ISO 306/B50
Ball Indentation Temperature	> 130	°C	IEC 60598-1
CLTE - Flow	1.5E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity (2.00 mm)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (2.00 mm)	70	kV/mm	IEC 60243-1
Dielectric Constant ³ (2.00 mm)	3.00 to 3.10		IEC 60250
Dissipation Factor ⁴	8.0E-3 to 0.016		IEC 60250
Comparative Tracking Index (3.00 mm, Solution A)	200	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating ⁵ (1.50 mm)	V-0		UL 94
Glow Wire Flammability Index ⁶			IEC 60695-2-12
1.00 mm	960	°C	
2.00 mm	960	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature ⁷			IEC 60695-2-13
1.00 mm	850	°C	
2.00 mm	850	°C	
3.00 mm	850	°C	
Oxygen Index ⁸	38	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	3.0 to 4.0	hr	
Processing (Melt) Temp	290 to 320	°C	
Mold Temperature	80.0	°C	
NOTE			
1.	2.0 mm/min		
2.	2.0 mm/min		
3.	50 Hz to 1 MHz		
4.	50 Hz to 1 MHz		
5.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		
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