

EMERGE™ PC 8600-10

Advanced Resin

Trinseo

Message:

EMERGE™ PC 8600 is translucent, ignition-resistant polycarbonate resin. This resin contains no bromine, chlorine or phosphate additives and is intended to comply with global environmental standards. It is an easy flow PC resin suitable for use in injection molded applications in the computer, electronics, electrical, and information technology equipment markets.

Applications:

Information technology equipment

Electronics and electrical appliances

Battery chargers and adaptors

General Information			
UL YellowCard	E54680-469946	E206114-228301	
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Flow		
Uses	Appliances Electrical/Electronic Applications		
Appearance	Translucent		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10	g/10 min	ASTM D1238, ISO 1133
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955, ISO 294-4
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
R-Scale, 3.20 mm, Injection Molded	123		ASTM D785
R-Scale, 4.00 mm	123		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
3.20 mm, Injection Molded	2210	MPa	ASTM D638
4.00 mm, Injection Molded	2200	MPa	ISO 527-2/50
Tensile Strength			
Yield, 3.20 mm, Injection Molded ¹	60.0	MPa	ASTM D638
Yield, 4.00 mm, Injection Molded	60.0	MPa	ISO 527-2/50
Break, 3.20 mm, Injection Molded	57.9	MPa	ASTM D638
Break, 4.00 mm, Injection Molded	58.0	MPa	ISO 527-2/50

Tensile Elongation			
Yield, 3.20 mm, Injection Molded	6.2	%	ASTM D638
Yield, 4.00 mm, Injection Molded	6.0	%	ISO 527-2/50
Break, 3.20 mm, Injection Molded	110	%	ASTM D638
Break, 4.00 mm, Injection Molded	110	%	ISO 527-2/50
Flexural Modulus			
3.20 mm, Injection Molded	2400	MPa	ASTM D790
4.00 mm, Injection Molded ²	2400	MPa	ISO 178
Flexural Strength			
3.20 mm, Injection Molded	93.8	MPa	ASTM D790
4.00 mm, Injection Molded ³	94.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C, 3.20 mm, Injection Molded	750	J/m	ASTM D256
23°C, Injection Molded ⁴	10	kJ/m ²	ISO 180/A
Instrumented Dart Impact (23°C, 3.20 mm, Total Energy)	58.8	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	139	°C	ASTM D648, ISO 75-2/B
1.8 MPa, Unannealed	127	°C	ASTM D648
1.8 MPa, Unannealed	125	°C	ISO 75-2/A
Vicat Softening Temperature			
--	149	°C	ASTM D1525 ⁵
--	150	°C	ISO 306/A120
--	144	°C	ISO 306/B50
Ball Indentation Temperature	> 125	°C	IEC 60335-1
CLTE - Flow (-22 to 85°C)	6.5E-5	cm/cm/°C	ASTM D696
RTI Elec	125	°C	UL 746
RTI Imp	125	°C	UL 746
RTI Str	125	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating ⁶ (1.59 mm)	V-0		Internal Method
Glow Wire Ignition Temperature ⁷ (2.00 mm)	960	°C	IEC 60695-2-13
Oxygen Index ⁸	35	%	ASTM D2863, ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Processing (Melt) Temp	271 to 288	°C	
Mold Temperature	65.6 to 98.9	°C	
NOTE			
1.	51 mm/min		

2.	2.0 mm/min
3.	2.0 mm/min
4.	4 mm
5.	Rate B (120°C/h), Loading 1 (10 N)
6.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.
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