TRINSEO™

EMERGE™ PC 8600-7
Advanced Resin

Overview

EMERGE™ PC 8600 is a 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.

Applications:

- Information Technology Equipment
- Power adaptors

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	7.0	g/10 min	7.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3	in/in	0.50 to 0.70	%	ASTM D955
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					ASTM D638
0.126 in (3.20 mm), Injection Molded	320000	psi	2210	MPa	
Tensile Strength					ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	8700	psi	60.0	MPa	
Break, 0.126 in (3.20 mm), Injection Molded	8400	psi	57.9	MPa	
Tensile Elongation					ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	6.2	%	6.2	%	
Break, 0.126 in (3.20 mm), Injection Molded	110	%	110	%	
Flexural Modulus					ASTM D790
0.126 in (3.20 mm), Injection Molded	348000	psi	2400	MPa	
Flexural Strength					ASTM D790
0.126 in (3.20 mm), Injection Molded	13600	psi	93.8	MPa	
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact					ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	14	ft·lb/in	750	J/m	
Instrumented Dart Impact [1]					ASTM D3763
73°F (23°C), 0.126 in (3.20 mm), Injection Molded, Total Energy	520	in·lb	58.8	J	
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Rockwell Hardness					ASTM D785
R-Scale, 0.126 in (3.20 mm), Injection Molded	123		123		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	282	°F	139	°C	
264 psi (1.8 MPa), Unannealed	260	°F	127	°C	
Vicat Softening Temperature	300	°F	149	°C	ASTM D1525 [2]
CLTE - Flow (-40 to 180°F (-40 to 82°C))	3.6E-5	in/in/°F	6.5E-5	cm/cm/°C	ASTM D696
RTI Elec (0.13 in (3.2 mm))	257	°F	125	°C	UL 746
RTI Imp (0.13 in (3.2 mm))	257	°F	125	°C	UL 746
RTI Str (0.13 in (3.2 mm))	257	°F	125	°C	UL 746

Flammability	Nominal Value (English)		Nominal Value (SI)		Test Method
Flame Rating [3]					UL 94
0.06 in (1.5 mm)	V-0		V-0		
0.12 in (3.0 mm)	V-0		V-0		
Glow Wire Flammability Index [3]					IEC 60695-2-12
0.04 in (1.0 mm)	1760	°F	960	°C	
Oxygen Index [3]	35	%	35	%	ASTM D2863

Injection	Nominal Value (English)		Nominal Value (SI)	
Drying Temperature	250	°F	121	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Processing (Melt) Temp	520 to 550	°F	271 to 288	°C
Mold Temperature	150 to 210	°F	66 to 99	°C