TRINSEO™

EMERGE™ PC/ABS 7770
Advanced Resin

Overview

EMERGE™ PC/ABS 7770 advanced resin is a high flow, ignition-resistant PC/ABS blend that contains no chlorinated or brominated additives. It combines elevated heat performance with the excellent processing characteristics associated with other EMERGE™ PC/ABS Advanced resins, meeting the market trend in Flat TV housing for higher heat, higher flow materials.

Applications:

- LCD TV Housings
- Plasma TV Housings

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ISO 1183/B
Melt Mass-Flow Rate (MFR)					ISO 1133
230°C/3.8 kg	20	g/10 min	20	g/10 min	
260°C/5.0 kg	70	g/10 min	70	g/10 min	
Molding Shrinkage - Flow	4.0E-3 to 6.0E-3	in/in	0.40 to 0.60	%	ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					ISO 527-2/1
0.157 in (4.00 mm), Injection Molded	421000	psi	2900	MPa	
Tensile Stress					ISO 527-2/50
Yield, 0.157 in (4.00 mm), Injection Molded	10200	psi	70.0	MPa	
Break, 0.157 in (4.00 mm), Injection Molded	7250	psi	50.0	MPa	
Tensile Strain					ISO 527-2/50
Yield, 0.157 in (4.00 mm), Injection Molded	5.0	%	5.0	%	
Break, 0.157 in (4.00 mm), Injection Molded	25	%	25	%	
Flexural Modulus [1]					ISO 178
0.157 in (4.00 mm), Injection Molded	421000	psi	2900	MPa	
Flexural Stress [1]					ISO 178
0.157 in (4.00 mm), Injection Molded	15200	psi	105	MPa	
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
73°F (23°C), Injection Molded	3.3	ft·lb/in²	7.0	kJ/m²	
Notched Izod Impact Strength [2]					ISO 180/A
73°F (23°C), Injection Molded	3.3	ft·lb/in²	7.0	kJ/m²	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Heat Deflection Temperature					
66 psi (0.45 MPa), Unannealed	208	°F	98.0	°C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	190	°F	88.0	°C	ISO 75-2/A
Vicat Softening Temperature					
--	235	°F	113	°C	ISO 306/A120
--	221	°F	105	°C	ISO 306/B50
Ball Indentation Temperature	208	°F	98.0	°C	IEC 60335-1

Flammability	Nominal Value (English)		Nominal Value (SI)		Test Method
Flame Rating [3] (0.06 in (1.6 mm))	V-0		V-0		UL 94
Glow Wire Flammability Index [3]					IEC 60695-2-12
0.04 in (1.0 mm)	1560	°F	850	°C	
0.08 in (2.0 mm)	1560	°F	850	°C	
0.12 in (3.0 mm)	1560	°F	850	°C	
Glow Wire Ignition Temperature [3]					IEC 60695-2-13
0.04 in (1.0 mm)	1430	°F	775	°C	
0.08 in (2.0 mm)	1430	°F	775	°C	
0.12 in (3.0 mm)	1430	°F	775	°C	

Injection	Nominal Value (English)		Nominal Value (SI)	
Drying Temperature	176 to 194	°F	80 to 90	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Processing (Melt) Temp	464 to 536	°F	240 to 280	°C
Mold Temperature	104 to 176	°F	40 to 80	°C