TRINSEO™

EMERGE™ PC 4350-22
Advanced Resin

Overview

EMERGE™ PC 4350-22 Advanced Resin is a polycarbonate resin offering ultraviolet light stability, high heat resistance and maximum toughness. This UV stable resin is available in a full range of colors that can be customer tailored to meet your product requirements.

Applications:

- Appliances
- Outdoor applications
- Automotive components
- Consumer Electronic Enclosures
- Sensor Window
- Packaging

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)	22	g/10 min	22	g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3	in/in	0.50 to 0.70	%	ASTM D955 ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus [1]	334000	psi	2300	MPa	ASTM D638
Tensile Strength [2]					ASTM D638
Yield	8700	psi	60.0	MPa	
Break	9430	psi	65.0	MPa	
Tensile Elongation [2]					ASTM D638
Yield	6.0	%	6.0	%	
Break	120	%	120	%	
Flexural Modulus [3]	348000	psi	2400	MPa	ASTM D790
Flexural Strength [3]	13800	psi	95.0	MPa	ASTM D790
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact (73°F (23°C))	13	ft·lb/in	700	J/m	ASTM D256
Instrumented Dart Impact					ASTM D3763
73°F (23°C), Total Energy	640	in·lb	72.3	J	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
264 psi (1.8 MPa), Unannealed	257	°F	125	°C	
Vicat Softening Temperature	298	°F	148	°C	ASTM D1525 [4]
CLTE - Flow (-40 to 176°F (-40 to 80°C))	3.6E-5	in/in/°F	6.5E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Volume Resistivity					
--	1.0E+15	ohms·cm	1.0E+15	ohms·cm	ASTM D257
--	> 1.0E+15	ohms·cm	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength	300	V/mil	12	kV/mm	ASTM D149
Arc Resistance	PLC 5		PLC 5		ASTM D495

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.016 in (0.40 mm)	HB	HB	
0.020 in (0.50 mm)	V-2	V-2	
0.031 in (0.8 mm)	V-2	V-2	
0.06 in (1.6 mm)	V-2	V-2	
0.08 in (2.0 mm)	V-2	V-2	
0.10 in (2.5 mm)	V-2	V-2	
0.12 in (3.0 mm)	V-2	V-2	
Glow Wire Flammability Index			IEC 60695-2-12
0.08 in (2.0 mm)	1520 °F	825 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.08 in (2.0 mm)	1560 °F	850 °C	

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	518 to 554 °F	270 to 290 °C
Mold Temperature	158 to 230 °F	70 to 110 °C