EMERGE™ PC 4310-22

Advanced Resin

Trinseo

Message:

EMERGE™ PC 4310-22 Advanced Resin is a high-performance polycarbonate resin offering high heat resistance, toughness, and superior flow. This resin is available in a full range of colors that can be custom tailored to meet your product requirements.
Applications:
Consumer Electronics and Information Technology Equipment
Computer and Business Equipment
Portable Electronics

General Information			
UL YellowCard	E206114-228294		
Features	Good Toughness High Flow High Heat Resistance		
Uses	Business Equipment Electrical/Electronic Applications		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 3.20 mm, Injection Molded)	118		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (3.20 mm, Injection Molded)	2340	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield, 3.20 mm, Injection Molded	60.0	MPa	
Break, 3.20 mm, Injection Molded	65.5	MPa	
Tensile Elongation (Break, 3.20 mm, Injection Molded)	120	%	ASTM D638
Flexural Modulus (3.20 mm, Injection Molded)	2410	MPa	ASTM D790
Flexural Strength (3.20 mm, Injection Molded)	96.5	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C, 3.20 mm, Injection Molded)	750	J/m	ASTM D256

Unnotched Izod Impact (23°C, 3.20 mm, Injection Molded)	No Break		ASTM D256
Instrumented Dart Impact [1] (23°C, 3.20 mm, Injection Molded, Peak Energy)	72.3	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Annealed, 3.99 mm	142	°C	
1.8 MPa, Unannealed, 3.99 mm	126	°C	
1.8 MPa, Annealed, 3.99 mm	139	°C	
CLTE - Flow (-40 to 80°C)	6.8E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	2.0E+17	ohms·cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.00		
1 MHz	3.00		
Dissipation Factor			ASTM D150
60 Hz	1.0E-3		
1 MHz	2.0E-3		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating [2]			UL 94
1.59 mm	HB		
3.20 mm	HB		
Oxygen Index [3]	26	%	ASTM D2863
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Processing (Melt) Temp	260 to 277	°C	
Mold Temperature	71.1 to 93.3	°C	
NOTE			
1.	3.39 m/sec		
2.	This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.		
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Recommended distributors for this material

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