



EMERGE™ PC 6900

Trinseo - Advanced Resin

Tuesday, November 5, 2019

General Information

Product Description

EMERGE™ PC 6900 is a specially designed ignition-resistant polycarbonate alloy. It combines high flow, high heat and high strength together. It is especially suited for thin-wall applications and has excellent high gloss aesthetics. EMERGE PC 6900 has a UL94 V-0 rating at 1.0 mm. This material does not contain chlorine or bromine additives.

Main Characteristics:

- Ignition resistant
- High Flow
- High Gloss

Applications:

- Thin-Wall Powered Device Housings
- Consumer Electronics
- Information technology equipment
- Computer housings

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• North America	
Features	• Bromine Free • Chlorine Free • Flame Retardant	• High Flow • High Gloss • High Heat Resistance	• High Strength • Pleasing Surface Appearance
Uses	• Electrical Housing • Electrical/Electronic Applications	• Housings • Thin-walled Parts	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.19		ASTM D792
Melt Mass-Flow Rate (230°C/3.8 kg)	18	g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 0.126 in, Injection Molded)	9430	psi	ASTM D638
Tensile Elongation (Break, 0.126 in, Injection Molded)	70	%	ASTM D638
Flexural Modulus (0.126 in, Injection Molded)	385000	psi	ASTM D790
Flexural Strength (0.126 in, Injection Molded)	14000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.126 in, Injection Molded)	2.8	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness R-Scale, 0.126 in, Injection Molded	123		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	212	°F	ASTM D648

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	194	°F	ASTM D648
Vicat Softening Temperature	241	°F	ASTM D1525 ²
CLTE - Flow	3.6E-5	in/in/°F	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Flame Rating ³			UL 94
0.020 in	V-2		
0.031 in	V-1		
0.04 in	V-0		
0.08 in	5VB		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	195 to 215	°F
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	430 to 500	°F
Mold Temperature	160 to 215	°F

Notes

¹ Typical properties: these are not to be construed as specifications.

² Rate B (120°C/h), Loading 1 (10 N)

³ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.