



EMERGE™ PC 4903

Trinseo - Advanced Resin

Tuesday, November 5, 2019

General Information

Product Description

EMERGE PC 4903 is a 30% glass fiber reinforced high flow ignition resistant polycarbonate resin. This resin does not contain bromine and chlorine flame retardants. EMERGE PC 4903 is designed with superior processability for use in structural parts of printers, scanners, copiers as well as internal parts for ITE applications.

Applications:

- Structural parts of printers, scanners, and copiers
- Internal parts of ITE machines

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Bromine Free • Chlorine Free • Flame Retardant • Good Processability • High Flow
Uses	• Business Equipment • Electrical Housing • Structural Parts • Thin-walled Parts
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.46		ASTM D792
Melt Mass-Flow Rate (300°C/1.2 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	986000	psi	ASTM D638
Tensile Strength (Yield, 0.126 in, Injection Molded)	16800	psi	ASTM D638
Flexural Modulus (0.126 in, Injection Molded)	1.22E+6	psi	ASTM D790
Flexural Strength (0.126 in, Injection Molded)	22500	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.126 in, Injection Molded)	2.3	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	212	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.04 in ²	V-0		
0.08 in	5VA		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	230	°F
Drying Time	6.0 to 8.0	hr
Rear Temperature	482 to 500	°F

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Injection	Nominal Value	Unit
Middle Temperature	500 to 518	°F
Front Temperature	500 to 536	°F
Nozzle Temperature	520 to 572	°F
Mold Temperature	140 to 212	°F

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.