

EMERGE™ PC 4902

Advanced Resin

Overview

EMERGE™ PC 4902 is a 20% glass fiber reinforced high flow ignition resistant polycarbonate resin. This grade provides flame rating UL 94 V0 at 1.6mm without the use of halogenated additives. It has superior processability and is ideal for structural frame components which are moving towards thinner wall sections.

Main Characteristics:

- UL 94 V0 at 1.6 mm
- Good Flow
- Does not contain halogenated additives

Applications:

- LCD Back Light Unit Frame Components
- Internal structural parts of Printers, Scanners, Copiers, Multifunction Office Automation Machines

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.30 g/cm ³	1.30 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	25 g/10 min	25 g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.5E-3 to 2.5E-3 in/in	0.15 to 0.25 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	12900 psi	89.0 MPa	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	885000 psi	6100 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	21800 psi	150 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	1.5 ft-lb/in	80 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	221 °F	105 °C	
CLTE - Flow	3.7E-5 in/in/°F	6.6E-5 cm/cm/°C	ASTM D696
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹ (0.06 in (1.6 mm))	V-0	V-0	UL 94
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	
Rear Temperature	500 to 536 °F	260 to 280 °C	
Middle Temperature	518 to 554 °F	270 to 290 °C	
Front Temperature	518 to 554 °F	270 to 290 °C	
Nozzle Temperature	536 to 572 °F	280 to 300 °C	
Mold Temperature	140 to 212 °F	60 to 100 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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