

EMERGE™ PC 4202-8

Advanced Resin

Overview

EMERGE™ PC 4202 advanced resin is 20% glass reinforced polycarbonate containing mold release for optimal processing. This resin exhibits high modulus and excellent dimensional stability. It is available in 8 and 15 Melt Flow Rates. EMERGE PC 4202 resin is typically used in injection molding applications. Applications are information technology equipment, electrical parts, other structural/internal parts.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.36 g/cm ³	1.36 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 in/in	0.20 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	750000 psi	5170 MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	12000 psi	82.7 MPa	
Break	12000 psi	82.7 MPa	
Tensile Elongation (Break)	3.0 %	3.0 %	ASTM D638
Flexural Modulus	720000 psi	4960 MPa	ASTM D790
Flexural Strength	21500 psi	148 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	2.0 ft-lb/in	110 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	122	122	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed	299 °F	148 °C	
264 psi (1.8 MPa), Unannealed	280 °F	138 °C	
264 psi (1.8 MPa), Annealed	288 °F	142 °C	
Vicat Softening Temperature	318 °F	159 °C	ASTM D1525 ¹
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ²			UL 94
0.06 in (1.6 mm)	V-2	V-2	
0.12 in (3.0 mm)	V-0	V-0	
Oxygen Index ²	30 %	30 %	ASTM D2863
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	250 °F	121 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Melt Temperature (Aim)	550 °F	288 °C	
Mold Temperature	180 °F	82 °C	

Notes

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

¹ Rate A (50°C/h), Loading 2 (50 N)

² This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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