

## EMERGE™ PC 4314 Advanced Resin

### Overview

EMERGE™ 4314 (former name XQR 70107.02) Advanced Resin is a 40% Glass Filled PC resin that is colored to either high reflective white or black color. It provides a property balance of high flowability, low dimensional distortion and high stiffness that can meet the market needs of thin wall application with high heat requirement.

Applications:

- Handheld devices
- Electronic accessories

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.54 g/cm <sup>3</sup>	1.54 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	16 g/10 min	16 g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	4.0E-4 to 7.0E-4 in/in	0.040 to 0.070 %	
Across Flow	1.5E-3 to 2.3E-3 in/in	0.15 to 0.23 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ASTM D638
0.126 in (3.20 mm), Injection Molded	1.42E+6 psi	9800 MPa	
Tensile Strength			ASTM D638
Break, 0.126 in (3.20 mm), Injection Molded	19100 psi	132 MPa	
Tensile Elongation			ASTM D638
Break, 0.126 in (3.20 mm), Injection Molded	1.4 %	1.4 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	1.44E+6 psi	9900 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	25800 psi	178 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	1.7 ft-lb/in	89 J/m	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	239 °F	115 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Processing (Melt) Temp	518 to 590 °F	270 to 310 °C	
Mold Temperature	158 to 194 °F	70 to 90 °C	