

## EMERGE™ PC/ABS 7380 Advanced Resin

### Overview

EMERGE PC/ABS 7380 advanced resin is a high flow and high toughness PC/ABS alloy. The property of EMERGE PC/ABS 7380 is specially designed with balanced toughness, tensile elongation and flexure modulus. This grade is designed for thin wall application with high heat and high mechanical strength needs.

Applications:

- Mobile phone
- Keycaps
- Tablets and portable devices

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm <sup>3</sup>	1.18 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
230°C/3.8 kg	4.0 g/10 min	4.0 g/10 min	
260°C/5.0 kg	24 g/10 min	24 g/10 min	
Molding Shrinkage - Flow	4.0E-3 to 6.0E-3 in/in	0.40 to 0.60 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	7830 psi	54.0 MPa	
Tensile Elongation			ASTM D638
Break, 0.126 in (3.20 mm), Injection Molded	130 %	130 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	377000 psi	2600 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	12600 psi	87.0 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	14 ft-lb/in	730 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	248 °F	120 °C	
264 psi (1.8 MPa), Unannealed	221 °F	105 °C	
RTI Elec	140 °F	60.0 °C	UL 746
RTI Imp	140 °F	60.0 °C	UL 746
RTI Str	140 °F	60.0 °C	UL 746
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating <sup>1</sup>			UL 94
0.04 in (1.0 mm)	HB	HB	
0.13 in (3.2 mm)	HB	HB	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	176 °F	80 °C	
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr	
Processing (Melt) Temp	446 to 536 °F	230 to 280 °C	
Mold Temperature	140 to 194 °F	60 to 90 °C	