



GRADE: ORION® PCHC7100 (F1)

Molding Grade: FR Polycarbonate with 10% Glass

Typical Material Properties

Physical	Nominal Values	ASTM Test
Specific Gravity	1.26	D792
Melt Flow (300°C/1.2 kg)	12.0 g/10 min	D1238
Mechanical		
Tensile Modulus	480,000 psi	D638
Tensile Strength @ Yield	9,400 psi	D638
Flexural Modulus	490,000 psi	D790
Flexural Strength @ Yield	14,500 psi	D790
Impact		
Notched Izod Impact (73°F, 0.125 in)	2.0 ft-lb/in	D256
Thermal		
DTUL @ 264 psi – Unannealed (0.125 in)	288°F	D648
Mold Shrinkage		
Linear Flow	.003 – .005 in/in	D955
UL Rating		
	(f1)	UL746C
Flammability	V-0 @ 1.5mm, 5VA @ 2.4mm	UL 94
RTI	125°C, 115°C, 125°C	UL746B
Non-Chlorinated & Non-Brominated		UL746H

Recommended Processing Guidelines

	Nominal Values
Drying Time and Temperature	4.0 hrs at 250°F
Suggested Max Moisture	0.020%
Rear Temperature	520 – 550°F
Middle Temperature	530 – 570°F
Front Temperature	550 – 600°F
Nozzle Temperature	550 – 600°F
Processing (Melt) Temperature	550 – 610°F
Mold Temperature	150 – 220°F
Back Pressure	50 – 100 psi
Screw Speed	40 – 75 RPM