

HiFill FR® J-50/20/FR

Techmer Polymer Modifiers - Polycarbonate

Product Description

Molding Parameters:

4 hours recommended for high tensile strength and smooth surface finish, or for vacuum metalizing.

The dry temperature at 16 hours is 180°F.

For 2-zone machines, the rear temperature is 550-590°F, and the front temperature is 540-560°F.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Additive	• Flame Retardant
Features	• Flame Retardant • Good Dimensional Stability • High Heat Resistance
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.36		ASTM D792
Molding Shrinkage - Flow			ASTM D955
0.125 in	3.0E-3	in/in	
0.250 in	4.0E-3	in/in	
Water Absorption (24 hr)	0.15	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	1.00E+6	psi	ASTM D638
Tensile Strength (Break, 73°F)	14000	psi	ASTM D638
Tensile Elongation (Break, 73°F)	3.0	%	ASTM D638
Flexural Modulus (73°F)	900000	psi	ASTM D790
Flexural Strength (Break, 73°F)	21000	psi	ASTM D790
Compressive Strength	18000	psi	ASTM D695
Shear Strength	9000	psi	ASTM D732
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.250 in)	1.8	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	77		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	300	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	300	°F	ASTM D648
CLTE - Flow	1.2E-5	in/in/°F	ASTM D696
RTI Elec			UL 746
0.06 in	257	°F	
0.13 in	167	°F	
RTI Imp			UL 746
0.06 in	239	°F	
0.13 in	167	°F	
RTI Str			UL 746
0.06 in	257	°F	
0.13 in	167	°F	



Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in		V-0	
0.13 in		5VA	
Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature		250 °F	
Drying Time		2.0 to 4.0 hr	
Suggested Max Moisture		0.10 %	
Rear Temperature		530 to 550 °F	
Middle Temperature		550 to 590 °F	
Front Temperature		540 to 560 °F	
Nozzle Temperature		530 to 560 °F	
Processing (Melt) Temp		540 to 570 °F	
Mold Temperature		160 to 190 °F	

