HiFill FR® J-50/20/FR

Techmer Polymer Modifiers - *Polycarbonate*

General Information

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 • Asia Pacific	• Europe • Latin America	• North 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		

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 746B
0.06 in	257	°F	
0.13 in	167	°F	
RTI Imp			UL 746B
0.06 in	239	°F	
0.13 in	167	°F	
RTI Str			UL 746B
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

Notes

[1] Typical properties: these are not to be construed as specifications.