POKETONE M33FG4A

Hyosung Chemical Corporation - *Polyketone, Aliphatic*

General Information

Product Description			
20% glass-reinforced injection molding grade US FDA food contact compliance and NSF 61 NSI/CAN drinking water certificate on cold and hot water			
General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Drinking Water Contact Acceptable	• Food Contact Acceptable	
Agency Ratings	• FDA	• ISO 10993	• NSF STD-61
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.39		ASTM D792
Density	1.39	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	22	g/10 min	ASTM D1238
Molding Shrinkage - Flow			ASTM D955
0.0787 in	3.0E-3	in/in	
0.118 in	3.0E-3	in/in	
Molding Shrinkage - Across Flow			ASTM D955
0.0787 in	0.010	in/in	
0.118 in	0.012	in/in	
Water Absorption (Saturation)	1.8	%	ASTM D570
Water Absorption (Saturation, 73°F)	1.8	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.40	%	ASTM D570
Water Absorption (Equilibrium, 73°F, 50% RH)	0.40	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	15500	psi	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	682000	psi	ASTM D790
Flexural Strength	21800	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	4.3	ft·lb/in²	ISO 179/1eA
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness	111		ASTM D785
Shore Hardness (Shore D)	80		ISO 868
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	419	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	419	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	410	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	401	°F	ISO 75-2/A
Vicat Softening Temperature	405	°F	ASTM D1525 [2]
Vicat Softening Temperature	405	°F	ISO 306/B50
Melting Temperature	432	°F	ISO 11357-3
Melting Temperature	432	°F	ASTM D3418

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+17	ohms	ASTM D257
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Constant (60 Hz)	6.00		ASTM D150
Dissipation Factor (60 Hz)	0.011		ASTM D150

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	410	°F
Middle Temperature	419 to 428	°F
Front Temperature	446	°F
Nozzle Temperature	464	°F
Processing (Melt) Temp	455 to 482	°F
Mold Temperature	140 to 176	°F
Back Pressure	42.7 to 99.6	psi
Screw Speed	50 to 100	rpm

Notes

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

[2] Loading 2 (50 N)