

POKETONE M33FG6A

Hyosung Chemical Corporation - Polyketone, Aliphatic

General Information
Product Description

30% glass-reinforced high-flow injection molding grade

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• High Flow
Agency Ratings	• ISO 10993 • KTW • NSF STD-61
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.46		ASTM D792
Density	1.46	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	20	g/10 min	ASTM D1238
Molding Shrinkage - Flow			ASTM D955
0.0787 in	1.0E-3	in/in	
0.118 in	2.0E-3	in/in	
Molding Shrinkage - Across Flow			ASTM D955
0.0787 in	9.0E-3	in/in	
0.118 in	0.011	in/in	
Water Absorption (Saturation)	1.7	%	ASTM D570
Water Absorption (Saturation, 73°F)	1.7	%	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 Modulus	1.12E+6	psi	ASTM D638
Tensile Modulus	1.09E+6	psi	ISO 527-1
Tensile Strength (Yield)	20300	psi	ASTM D638
Tensile Stress (Yield)	20300	psi	ISO 527-2
Tensile Elongation (Break)	4.0	%	ASTM D638
Tensile Strain (Break)	3.8	%	ISO 527-2
Flexural Modulus	957000	psi	ASTM D790
Flexural Modulus	892000	psi	ISO 178
Flexural Strength	27600	psi	ASTM D790
Flexural Stress	26800	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	5.7	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	No Break		ISO 179/1eU
Notched Izod Impact	2.2	ft·lb/in	ASTM D256
Notched Izod Impact Strength	6.2	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength	49	ft·lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness	113		ASTM D785
Shore Hardness (Shore D)	83		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)	410 °F	ISO 75-2/A
Vicat Softening Temperature	410 °F	ASTM D1525 ²
Vicat Softening Temperature	410 °F	ISO 306/B50
Melting Temperature	432 °F	ISO 11357-3
Melting Temperature	432 °F	ASTM D3418
CLTE - Flow (77 to 131°F)	5.4E-5 in/in/°F	ASTM E831
CLTE - Transverse (77 to 131°F)	1.6E-5 in/in/°F	ASTM E831
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.0E+17 ohms	ASTM D257
Volume Resistivity	1.0E+14 ohms·cm	ASTM D257
Dielectric Strength		ASTM D149
0.0787 in	560 V/mil	
0.118 in	430 V/mil	
Dielectric Constant (60 Hz)	6.30	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)

