POKETONE® M33FG6A

General

Feature	30% glass-reinforced high-flow injection molding grade (Food Contact)
Special Characteristics	Non-toxic, High impact, Low NVH
Processing method	Extrusion/injection
Certification	MRS, FDA, NSF61, WRAS, RoHs, Free of PAHs, Free of Halogen, SVHC
Colors available	Natural, Black, Blue, Gray, Brown
UL File number	-
Form	Pellet
Applications	Pipe & Fittings, Pump housing

Physical Properties

	ASTM	Value	ISO	Value
Density	D792	1.46 g/cm^3	1183	1.46 g/cm^3
Shore D hardness	D2240		868	83
Hardness Rockwell	D785	113	2039	
Water absorption equilibrium at RH 50%	D570	0.4 %	62	0.4 %
Water absorption at Saturation	D570	1.7 %	62	1.7 %
Melt flow index 240°C/2.16kg	D1238	14 g/10 min	1133	13ml /10min
Mold Shrinkage	D955		294-4	
	MD, 3 mm	0.2 %		
	TD, 3 mm	1.1 %		
	MD, 2 mm	0.1 %		
	TD, 2 mm	0.9 %		

Mechanical Properties

	ASTM	Value	ISO	Value
Tensile strength at yield	D638	140 MPa	527-1	140 MPa
Tensile modulus	D638	7,700 MPa	527-1	7,500 MPa
Tensile elongation at yield	D638		527-1	
Tensile elongation at break	D638	4 %	527-1	3.8 %
Flexural strength	D790	190 MPa	178	185 MPa
Flexural modulus	D790	6,600 MPa	178	6,150 MPa
Unnotched Izod impact strength	D256		180/1U	104 kJ/m^2.
Notched Izod impact strength	D256	120 J/m	180/1A	13 kJ/m^2
Unnotched Charpy impact strength	D6110		179/1eU	N.B.
Notched Charpy impact strength	D6110		179/1eA	12 kJ/m^2

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Falling dart impact strength	6603-2

Thermal Properties	ASTM	Value	ISO	Value
Melting temperature	D3418	222 °C	11357	222 °C
Coefficient of linear thermal expansion, 25 ~ 55°C	E831 TD MD	 9.7×10^{-5} 2.8×10^{-5}	11359	
Vicat softening point	D1525 5 kg	210 °C	306/B50 50 N	210 °C
Heat deflection temperature	D648 66 psi 264 psi	 215 °C 210 °C	75 0.45 MPa 1.8 MPa	 215 °C 210 °C

The Long-Term Hydrostatic Strength	Test Method & Condition	Value
σ_{LPL}	ISO 9080	11.66 MPa
MRS	ISO 9080	11.2 MPa

Electrical Properties	Test Method & Condition	Value
Hot Wire Ignition (HWI)	UL 746A	PLC 0(3.2mm)
High Amp Arc Ignition (HAI)	UL 746A	PLC 0(0.8mm)
High Volt arc Track Rate (HVTR)	UL 746A	PLC 1
Comparative Tracking Index (CTI)	ASTM D3638	PLC 0
Dielectric constant at 60Hz	ASTM D150	6.3
Dissipation factor at 60Hz	ASTM D150	0.011

Injection Molding Processing Conditions		Value
Pre-drying	Drying temperature	80 °C
	Drying time	3 ~ 4 hr

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	Suggested max moisture	0.20 %
Temperature	Nozzle temperature	240 °C
	Zone 1 temperature	230 °C
	Zone 2 temperature	220 °C
	Zone 3 temperature	215 °C
	Zone 4 temperature	210 °C
	Processing temperature	225 ~ 240 °C
	Mold temperature	80 ~ 120 °C
Pressure	Back pressure	0.294 ~ 0.686 MPa
Speed	Screw Speed	50 ~ 100 rpm

* The data listed here is not for specification warranty, but typical value.

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