

POKETONE® M33FG6B

General

Feature	30% glass-reinforced high-flow injection molding grade (Food Contact)
Special Characteristics	Non-toxic, Low GWP, High impact
Processing method	Injection molding
Certification	FDA, EU No.10/2011
Colors available	Natural
UL File number	-
Form	Pellet
Applications	-

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	13 ml/10 min
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

Falling dart impact strength	6603-2
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Thermal Properties

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

Electrical Properties

	Test Method & Condition	Value
Dielectric Strength (DS)	ASTM D149	
	3 mm	17 kV/mm
	2 mm	22 kV/mm
Volume Resistivity (VR)	ASTM D257	$10^{14} \Omega\text{-cm}$
Surface Resistivity (SR)	ASTM D257	$10^{17} \Omega/\text{m}^2$
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
	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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