POKETONE® M33FG9A

General

Feature	50% glass-reinforced high flow injection molding grade
Special Characteristics	Non-toxic, High impact
Processing method	Injection molding
Certification	FDA, RoHs, Free of PAHs, Free of Halogen, SVHC
Colors available	Natural, Black, Blue
UL File number	-
Form	Pellet
Applications	-

Physical Properties

Physical Properties	ASTM	Value	ISO	Value
Density	D792	1.69 g/cm^3	1183	1.69 g/cm^3
Shore D hardness	D2240		868	
Hardness Rockwell	D785		2039	
Water absorption equilibrium at RH 50%	D570		62	
Water absorption at Saturation	D570		62	
Melt flow index 240°C/2.16kg	D1238	3 g/10 min	1133	
Mold Shrinkage	D955 MD, 3 mm TD, 3 mm		294-4	
	MD, 2 mm TD, 2 mm			

Mechanical Properties

Mechanical Properties	ASTM	Value	ISO	Value
Tensile strength at yield	D638	155 MPa	527-1	
Tensile modulus	D638	14,000 MPa	527-1	
Tensile elongation at yield	D638	2.9 %	527-1	
Tensile elongation at break	D638	2.9 %	527-1	
Flexural strength	D790	210 MPa	178	
Flexural modulus	D790	10,000 MPa	178	
Unnotched Izod impact strength	D256		180/1U	
Notched Izod impact strength	D256		180/1A	
Unnotched Charpy impact strength	D6110		179/1eU	
Notched Charpy impact strength	D6110		179/1eA	15 kJ/m^2

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		11359	
Vicat softening point	D1525 5 kg		306/B50 50 N	
Heat deflection temperature	D648 66 psi 264 psi	 215 °C 210 °C	75 0.45 MPa 1.8 MPa	

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	0.3 ~ 0.7 MPa
Speed	Screw Speed	50 ~ 100 rpm

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