

POKETONE® M130F

General

Feature	Advanced high-flow injection molding grade (Food Contact)
Special Characteristics	Non-toxic, Low GWP
Processing method	Injection molding
Certification	FDA, KFDA, NSF61, RoHs, Free of PAHs, Free of Halogen, SVHC
Colors available	Natural
UL File number	-
Form	Pellet
Applications	Gear

Physical Properties

	ASTM	Value	ISO	Value
Density	D792	1.24 g/cm ³	1183	1.24 g/cm ³
Shore D hardness	D2240		868	78
Hardness Rockwell	D785	110	2039	
Water absorption equilibrium at RH 50%	D570	0.5 %	62	0.5 %
Water absorption at Saturation	D570	2.1 %	62	2.1 %
Melt flow index 240°C/2.16kg	D1238	200 g/10 min	1133	196 ml/10 min
Mold Shrinkage	D955		294-4	
	MD, 3 mm	1.8 %		
	TD, 3 mm	1.7 %		
	MD, 2 mm	1.5 %		
	TD, 2 mm	1.4 %		

Mechanical Properties

	ASTM	Value	ISO	Value
Tensile strength at yield	D638	63 MPa	527-1	63 MPa
Tensile modulus	D638	1,650 MPa	527-1	1,550 MPa
Tensile elongation at yield	D638	20 %	527-1	20 %
Tensile elongation at break	D638	≥ 100 %	527-1	≥ 100 %
Flexural strength	D790	61 MPa	178	61 MPa
Flexural modulus	D790	1,550 MPa	178	1,450 MPa
Unnotched Izod impact strength	D256	N.B.	180/1U	N.B.
Notched Izod impact strength	D256		180/1A	
	23 °C	60 J/m	23 °C	6 kJ/m ²

	-10 °C	45 J/m	-10 °C	3 kJ/m ²
	-30 °C	30 J/m	-30 °C	2 kJ/m ²
Unnotched Charpy impact strength	D6110		179/1eU	N.B.
Notched Charpy impact strength	D6110		179/1eA	
			23 °C	6 kJ/m ²
			-10 °C	2 kJ/m ²
			-30 °C	2 kJ/m ²
Falling dart impact strength			6603-2	2 J
			23 °C	

Thermal Properties

	ASTM	Value	ISO	Value
Melting temperature	D3418	222 °C	11357	222 °C
Coefficient of linear thermal expansion	E831 25 ~ 55°C	1.0×10 ⁻⁴	11359	
Vicat softening point	D1525 5 kg	195 °C	306/B50 50 N	190 °C
Heat deflection temperature	D648 66 psi 264 psi	200 °C 105 °C	75 0.45 MPa 1.8 MPa	190 °C 92 °C

Flammability Properties

	Test Method & Condition	Value
Flame resistance	UL 94	HB (0.8 mm)

Electrical Properties

	Test Method & Condition	Value
	ASTM D149	
Dielectric Strength (DS)	3 mm	15 kV/mm
	2 mm	19 kV/mm
Volume Resistivity (VR)	ASTM D257	10 ¹² Ω-cm
Surface Resistivity (SR)	ASTM D257	10 ¹⁷ Ω/m ²
Dielectric constant at 60Hz	ASTM D150	6.0
Dissipation factor at 60Hz	ASTM D150	0.012

Injection Molding Processing Conditions

	Value
Pre-drying	Drying temperature 80 °C
	Drying time 3 ~ 4 hr

Temperature	Suggested max moisture	0.20 %
	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 °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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