

POKETONE® M330F

General

Feature	High-flow injection molding grade (Food Contact)
Special Characteristics	Non-toxic, Low GWP
Processing method	Injection molding
Certification	FDA, KFDA, NSF51, EU No.10/2011, GMC Resolution 02/12 & 32/07, NSF61, KTW, WRAS, DM174, UL94, UL746A, USP Class VI, ISO 10993, EN71-Part3, RoHs, Free of PAHs, Free of Halogen, VOCs, SVHC, CP65
Colors available	Natural, Black, Gray, White
UL File number	E163907
Form	Pellet
Applications	Pipes & Fittings, Watermeter, Food Conveyer, Cosmetic packaging

Physical Properties

	ASTM	Value	ISO	Value
Density	D792	1.24 g/cm ³	1183	1.24 g/cm ³
Shore D hardness	D2240		868	77
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	60 g/10 min	1133	56 ml/10 min
Mold Shrinkage	D955		294-4	
	MD, 3 mm	2.0 %		
	TD, 3 mm	2.0 %		
	MD, 2 mm	1.6 %		
	TD, 2 mm	1.5 %		

Mechanical Properties

	ASTM	Value	ISO	Value
Tensile strength at yield	D638	60 MPa	527-1	60 MPa
Tensile modulus	D638	1,600 MPa	527-1	1,500 MPa
Tensile elongation at yield	D638	21 %	527-1	21 %
Tensile elongation at break	D638	≥ 200 %	527-1	≥ 200 %
Flexural strength	D790	57 MPa	178	57 MPa
Flexural modulus	D790	1,500 MPa	178	1,400 MPa
Unnotched Izod impact strength	D256	N.B.	180/1U	N.B.
Notched Izod impact strength	D256		180/1A	

	23 °C	95 J/m	23 °C	7 kJ/m ²
	-10 °C	60 J/m	-10 °C	4 kJ/m ²
	-30 °C	40 J/m	-30 °C	3 kJ/m ²
Unnotched Charpy impact strength	D6110		179/1eU	N.B.
Notched Charpy impact strength	D6110		179/1eA	
			23 °C	8 kJ/m ²
			-10 °C	4 kJ/m ²
			-30 °C	2 kJ/m ²
Falling dart impact strength			6603-2	
			23 °C	50 J

Thermal Properties	ASTM	Value	ISO	Value
Melting temperature	D3418	222 °C	11357	222 °C
Coefficient of linear thermal expansion	E831 25 ~ 55°C	9.7×10 ⁻⁵	11359	
Vicat softening point	D1525 5 kg	195 °C	306/B50 50 N	195 °C
Heat deflection temperature	D648		75	
	66 psi	200 °C	0.45 MPa	190 °C
	264 psi	105 °C	1.8 MPa	92 °C

Flammability Properties	Test Method & Condition	Value
Flame resistance	UL 94	HB (0.8 mm)
Glow Wire Ignition Temperature (GWIT)	IEC 60695-2-13	725 °C (0.8 mm)
Glow Wire Flammability Index (GWFI)	IEC 60695-2-12	700 °C (0.8 mm)

Electrical Properties	Test Method & Condition	Value
Dielectric Strength (DS)	ASTM D149	23 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	6.2
	IEC 250	5
Dissipation factor at 60Hz	ASTM D150	0.008
	IEC 250	0.013
Hot Wire Ignition (HWI)	UL 746A	PLC 4 (0.8 mm)
		PLC 3 (1.5 mm)
		PLC 2 (3.0 mm)
High Amp Arc Ignition (HAI)	UL 746A	PLC 0 (0.8 mm)

High Volt arc Track Rate (HVTR)	UL 746A	PLC 0
High voltage, low current Arc Resistance (AR)	ASTM D495	PLC 4
Comparative Tracking Index (CTI)	ASTM D3638	PLC 0

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 °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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