POKETONE® M710F

Description

Food & drug extrusion grade

Physical Properties	ASTM	Value	ISO	Value
Density	D792	1.22 g/cm^3	1183	1.22 g/cm^3
Shore D hardness	D2240		868	75
Hardness Rockwell	D785	105	2039	
Water absorption equilibrium at RH 50%	D570	0.5 %	62	0.5 %
Water absorption at Saturation	D570	2.2 %	62	2.2 %
Melt flow index 220°C/2.16kg	D1238	3 g/10 min	1133	2.8 ml/10 min
Mold Shrinkage	D955 MD, 3 mm TD, 3 mm MD, 2 mm TD, 2 mm	 1.7 % 1.7 %	294-4	

Mechanical Properties	ASTM	Value	ISO	Value
Tensile strength at yield	D638	43 MPa	527-1	43 MPa
Tensile modulus	D638	950 MPa	527-1	900 MPa
Tensile elongation at yield	D638	19 %	527-1	19 %
Tensile elongation at break	D638	≥ 200 %	527-1	≥ 200 %
Flexural strength	D790	40 MPa	178	40 MPa
Flexural modulus	D790	900 MPa	178	850 MPa
Unnotched Izod impact strength	D256	N.B.	180/1U	N.B.
Notched Izod impact strength	D256 23 °C -30 °C	 200 J/m 50 J/m	180/1A 23 °C -30 °C	 15 kJ/m^2 4 kJ/m^2
Unnotched Charpy impact strength	D6110		179/1eU	N.B.
Notched Charpy impact strength	D6110		179/1eA 23 °C -30 °C	 14 kJ/m^2 3 kJ/m^2
Falling dart impact strength			6603-2	

Thermal Properties	ASTM	Value	ISO	Value
Melting temperature	D3418	197 °C	11357	197 °C
Coefficient of linear thermal expansion	E831 25 ~ 55°C	1.0×10^{-4}	11359	
Vicat softening point	D1525 5 kg	155 °C	306/B50 50 N	152 °C
Heat deflection temperature	D648 66 psi 264 psi	 155 °C 75 °C	75 0.45 MPa 1.8 MPa	 140 °C 65 °C

Flammability Properties

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

Electrical Properties

	Test Method & Condition	Value
Dielectric Strength (DS)	ASTM D149	
	3 mm	15 kV/mm
	2 mm	19 kV/mm
Volume Resistivity (VR)	ASTM D257	10^{14} Ω-cm
Surface Resistivity (SR)	ASTM D257	10^{17} Ω /m^2
Dielectric constant at 60Hz	ASTM D150	6.4
Dissipation factor at 60Hz	ASTM D150	0.014

Extrusion Processing Conditions

		Value
Pre-drying	Drying temperature	80 °C
	Drying time	3 ~ 4 hr
	Suggested max moisture	0.20 %
Temperature	Adapter & Die temperature	210 °C
	Zone 5 temperature	210 °C
	Zone 4 temperature	210 °C
	Zone 3 temperature	215 °C
	Zone 2 temperature	225 °C
	Zone 1 temperature	230 °C
	Jacket temperature	< 50 °C
	Processing temperature	210 ~ 230 °C
Screw Design	L/D	> 26
	Compression ratio	2.5 ~ 3.0

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