

POKETONE[®] M730R

General

Feature	Thermal resistant extrusion grade
Special Characteristics	Low GWP, Good oil resistance, Good thermal resistance
Processing method	Extrusion
Certification	RoHs, Free of PAHs, Free of Halogen, SVHC
Colors available	Natural
UL File number	-
Form	Pellet
Applications	Down-hole Pipe Liner

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	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 240°C/2.16kg	D1238	3 g/10 min	1133	2.8 ml/10 min
Mold Shrinkage	D955		294-4	
	MD, 3 mm	2.2 %		
	TD, 3 mm	2.1 %		
	MD, 2 mm			
	TD, 2 mm			

Mechanical Properties

	ASTM	Value	ISO	Value
Tensile strength at yield	D638	56 MPa	527-1	56 MPa
Tensile modulus	D638	1,400 MPa	527-1	1,300 MPa
Tensile elongation at yield	D638	24 %	527-1	24 %
Tensile elongation at break	D638	≥ 200 %	527-1	≥ 200 %
Flexural strength	D790	50 MPa	178	50 MPa
Flexural modulus	D790	1,250 MPa	178	1,200 MPa
Unnotched Izod impact strength	D256	N.B.	180/1U	N.B.

Notched Izod impact strength	D256		180/1A	
	23 °C	240 J/m	23 °C	20 kJ/m ²
	-30 °C	52 J/m	-30 °C	4 kJ/m ²
Unnotched Charpy impact strength	D6110		179/1eU	N.B.
Notched Charpy impact strength	D6110		179/1eA	
			23 °C	19 kJ/m ²
			-30 °C	4 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	E831		11359	
	TD	9.4×10^{-5}		
	MD	1.0×10^{-4}		
Vicat softening point	D1525	190 °C	306/B50	190 °C
	5 kg		50 N	
Heat deflection temperature	D648		75	
	66 psi	190 °C	0.45 MPa	185 °C
	264 psi	90 °C	1.8 MPa	80 °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	16 kV/mm
	2 mm	20 kV/mm
Volume Resistivity (VR)	ASTM D257	10^{14} ohm cm
Surface Resistivity (SR)	ASTM D257	10^{17} ohm/sq
Dielectric constant at 60Hz	ASTM D150	6.2
Dissipation factor at 60Hz	ASTM D150	0.014

Extrusion Processing Conditions

	Value
Pre-drying	Drying temperature
	80 °C

Temperature	Drying time	3 ~ 4 hr
	Suggested max moisture	0.20 %
	Adapter & Die temperature	220 °C
	Zone 5 temperature	230 °C
	Zone 4 temperature	230 °C
	Zone 3 temperature	235 °C
	Zone 2 temperature	240 °C
	Zone 1 temperature	240 °C
	Jacket temperature	< 50 °C
	Processing temperature	220 ~ 240 °C
Screw Design	L/D	> 26
	Compression ratio	2.5 ~ 3.0

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

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