

# POKETONE® M730R

## Description

Thermal resistant extrusion grade

Physical Properties	ASTM	Value	ISO	Value
Density	D792	1.24 g/cm <sup>3</sup>	1183	1.24 g/cm <sup>3</sup>
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 <sup>2</sup>
	-30 °C	52 J/m	-30 °C	4 kJ/m <sup>2</sup>
Unnotched Charpy impact strength	D6110		179/1eU	N.B.
Notched Charpy impact strength	D6110		179/1eA	
			23 °C	19 kJ/m <sup>2</sup>
			-30 °C	4 kJ/m <sup>2</sup>
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			
	TD	9.4×10 <sup>-5</sup>	11359	
	MD	1.0×10 <sup>-4</sup>		
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 <sup>14</sup> ohm cm
Surface Resistivity (SR)	ASTM D257	10 <sup>17</sup> 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
	Drying time	3 ~ 4 hr
	Suggested max moisture	0.20 %
Temperature	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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