

POKETONE M730R

Hyosung Chemical Corporation - Polyketone, Aliphatic

General Information

Product Description

Thermal resistant extrusion grade

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Features	• Thermal Aging Resistant
Agency Ratings	• ISO 10993 • KTW
RoHS Compliance	• RoHS Compliant
Processing Method	• Extrusion

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Density	1.24	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	2.8	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.118 in)	0.022	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.118 in)	0.021	in/in	ASTM D955
Water Absorption (Saturation)	2.2	%	ASTM D570
Water Absorption (Saturation, 73°F)	2.2	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.50	%	ASTM D570
Water Absorption (Equilibrium, 73°F, 50% RH)	0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	203000	psi	ASTM D638
Tensile Modulus	189000	psi	ISO 527-1
Tensile Strength (Yield)	8120	psi	ASTM D638
Tensile Stress (Yield)	8120	psi	ISO 527-2
Tensile Elongation (Yield)	24	%	ASTM D638
Tensile Strain (Yield)	24	%	ISO 527-2
Tensile Elongation (Break)	> 200	%	ASTM D638
Tensile Strain (Break)	> 200	%	ISO 527-2
Flexural Modulus	181000	psi	ASTM D790
Flexural Modulus	174000	psi	ISO 178
Flexural Strength	7250	psi	ASTM D790
Flexural Stress	7250	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.9	ft·lb/in ²	
73°F	9.0	ft·lb/in ²	
Charpy Unnotched Impact Strength	No Break		ISO 179/1eU
Notched Izod Impact			ASTM D256
-22°F	0.97	ft·lb/in	
73°F	4.5	ft·lb/in	
Notched Izod Impact Strength			ISO 180/1A
-22°F	1.9	ft·lb/in ²	
73°F	9.5	ft·lb/in ²	
Unnotched Izod Impact	No Break		ASTM D256



Unnotched Izod Impact Strength	No Break	ISO 180/1U
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness	105	ASTM D785
Shore Hardness (Shore D)	78	ISO 868
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	374 °F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	365 °F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	194 °F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	176 °F	ISO 75-2/A
Vicat Softening Temperature	374 °F	ASTM D1525 ²
Vicat Softening Temperature	374 °F	ISO 306/B50
Melting Temperature	432 °F	ISO 11357-3
Melting Temperature	432 °F	ASTM D3418
CLTE - Flow (77 to 131°F)	5.2E-5 in/in/°F	ASTM E831
CLTE - Transverse (77 to 131°F)	5.6E-5 in/in/°F	ASTM E831
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.0E+17 ohms	ASTM D257
Volume Resistivity	1.0E+14 ohms·cm	ASTM D257
Dielectric Strength		ASTM D149
0.0787 in	510 V/mil	
0.118 in	410 V/mil	
Dielectric Constant (60 Hz)	6.20	ASTM D150
Dissipation Factor (60 Hz)	0.014	ASTM D150
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.031 in)	HB	UL 94

Processing Information

Extrusion	Nominal Value Unit
Drying Temperature	176 °F
Drying Time	3.0 to 4.0 hr
Suggested Max Moisture	0.20 %
Cylinder Zone 1 Temp.	464 °F
Cylinder Zone 2 Temp.	464 °F
Cylinder Zone 3 Temp.	455 °F
Cylinder Zone 4 Temp.	446 °F
Cylinder Zone 5 Temp.	446 °F
Adapter Temperature	428 °F
Melt Temperature	428 to 464 °F
Die Temperature	428 °F
Screw Compression Ratio	2.5:1.0 to 3.0:1.0

Extrusion Notes

Jacket Temperature: < 50°C
Screw L/D ratio: > 26

Notes

¹ Typical properties: these are not to be construed as specifications.

² Loading 2 (50 N)

