

**POKETONE M630F**

 Hyosung Chemical Corporation - *Polyketone, Aliphatic*

## General Information

**Product Description**

General-purpose injection molding grade (Food Contact)

**General**

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Food Contact Acceptable • General Purpose		
Uses	• General Purpose		
Agency Ratings	• ACS • EU 10/2011 • FDA FCN 1847	• ISO 10993 • KTW • NSF STD-51	• NSF STD-61 • USP Class VI • WRAS
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

 Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Density	1.24	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	6.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	5.6	g/10 min	ISO 1133
Molding Shrinkage - Flow			ASTM D955
0.0787 in	0.016	in/in	
0.118 in	0.021	in/in	
Molding Shrinkage - Across Flow			ASTM D955
0.0787 in	0.015	in/in	
0.118 in	0.021	in/in	
Water Absorption (Saturation)	2.1	%	ASTM D570
Water Absorption (Saturation, 73°F)	2.1	%	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	210000	psi	ASTM D638
Tensile Modulus	196000	psi	ISO 527-1
Tensile Strength (Yield)	8410	psi	ASTM D638
Tensile Stress (Yield)	8410	psi	ISO 527-2
Tensile Elongation (Yield)	22	%	ASTM D638
Tensile Strain (Yield)	22	%	ISO 527-2
Tensile Elongation (Break)	> 200	%	ASTM D638
Tensile Strain (Break)	> 200	%	ISO 527-2
Flexural Modulus	196000	psi	ASTM D790
Flexural Modulus	181000	psi	ISO 178
Flexural Strength	7690	psi	ASTM D790
Flexural Stress	7690	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.4	ft-lb/in <sup>2</sup>	
14°F	1.9	ft-lb/in <sup>2</sup>	
73°F	8.1	ft-lb/in <sup>2</sup>	



Charpy Unnotched Impact Strength	No Break	ISO 179/1eU
Notched Izod Impact		ASTM D256
-22°F	0.97 ft·lb/in	
14°F	1.2 ft·lb/in	
73°F	4.1 ft·lb/in	
Notched Izod Impact Strength		ISO 180/1A
-22°F	1.9 ft·lb/in <sup>2</sup>	
14°F	2.9 ft·lb/in <sup>2</sup>	
73°F	7.1 ft·lb/in <sup>2</sup>	
Unnotched Izod Impact	No Break	ASTM D256
Unnotched Izod Impact Strength	No Break	ISO 180/1U
Multi-Axial Instrumented Impact Energy (73°F)	36.9 ft·lb	ISO 6603-2
<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>
Rockwell Hardness	110	ASTM D785
Shore Hardness (Shore D)	76	ISO 868
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>
Deflection Temperature Under Load (66 psi, Unannealed)	383 °F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	365 °F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	216 °F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	194 °F	ISO 75-2/A
Vicat Softening Temperature	378 °F	ASTM D1525 <sup>2</sup>
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)	5.6E-5 in/in/°F	ASTM E831
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>
Surface Resistivity	1.0E+17 ohms	ASTM D257
Volume Resistivity	1.0E+14 ohms·cm	ASTM D257
Dielectric Strength		ASTM D149
0.0787 in	480 V/mil	
0.118 in	380 V/mil	
Dielectric Constant (60 Hz)	6.10	ASTM D150
Dissipation Factor (60 Hz)	9.0E-3	ASTM D150

### Processing Information

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature	176	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	428	°F
Middle Temperature	437 to 446	°F
Front Temperature	464	°F
Nozzle Temperature	482	°F
Processing (Melt) Temp	455 to 482	°F
Mold Temperature	140 to 176	°F
Back Pressure	42.7 to 99.6	psi
Screw Speed	50 to 100	rpm

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Loading 2 (50 N)

