POKETONE M930F

Hyosung Chemical Corporation - *Polyketone, Aliphatic*

General Information

Product Description			
Advanced high-flow injection molding grade (Food Contact)			
General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Food Contact Acceptable	• High Flow	
Agency Ratings	• ACS • 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 [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Density	1.24	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	200	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	196	g/10 min	ISO 1133
Molding Shrinkage - Flow			ASTM D955
0.0787 in	0.015	in/in	
0.118 in	0.018	in/in	
Molding Shrinkage - Across Flow			ASTM D955
0.0787 in	0.014	in/in	
0.118 in	0.017	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	239000	psi	ASTM D638
Tensile Modulus	225000	psi	ISO 527-1
Tensile Strength (Yield)	9140	psi	ASTM D638
Tensile Stress (Yield)	9140	psi	ISO 527-2
Tensile Elongation (Yield)	20	%	ASTM D638
Tensile Strain (Yield)	20	%	ISO 527-2
Tensile Elongation (Break)	> 100	%	ASTM D638
Tensile Strain (Break)	> 100	%	ISO 527-2
Flexural Modulus	225000	psi	ASTM D790
Flexural Modulus	210000	psi	ISO 178
Flexural Strength	8850	psi	ASTM D790
Flexural Stress	8850	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	0.95	ft·lb/in²	
14°F	0.95	ft·lb/in²	
73°F	2.9	ft·lb/in²	
Charpy Unnotched Impact Strength	No Break		ISO 179/1eU

Notched Izod Impact			ASTM D256
-22°F	0.56	ft·lb/in	
14°F	0.84	ft·lb/in	
73°F	1.1	ft·lb/in	
Unnotched Izod Impact	No Break		ASTM D256
Unnotched Izod Impact Strength	No Break		ISO 180/1U
Multi-Axial Instrumented Impact Energy (73°F)	1.48	ft·lb	ISO 6603-2
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness	110		ASTM D785
Shore Hardness (Shore D)	78		ISO 868
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	392	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	374	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	221	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	198	°F	ISO 75-2/A
Vicat Softening Temperature	383	°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)	5.6E-5	in/in/°F	ASTM E831
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+18	ohms	ASTM D257
Volume Resistivity	1.0E+13	ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
0.0787 in	480	V/mil	
0.118 in	380	V/mil	
Dielectric Constant (60 Hz)	6.00		ASTM D150
Dissipation Factor (60 Hz)	0.012		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.031 in)	HB		UL 94

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature	176	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	410	°F
Middle Temperature	419 to 428	°F
Front Temperature	446	°F
Nozzle Temperature	464	°F
Processing (Melt) Temp	437 to 464	°F
Mold Temperature	140 to 176	°F
Back Pressure	42.6 to 99.5	psi
Screw Speed	50 to 100	rpm

Notes

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

[2] Loading 2 (50 N)