

POKETONE M33AF2Y

Hyosung Chemical Corporation - Polyketone, Aliphatic

General Information

Product Description

Flame retarded (0.8mm V-0), high-flow injection molding grade

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Features	• Flame Retardant • High Flow
Agency Ratings	• ISO 10993
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.26		ASTM D792
Density	1.26	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	34	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	32	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.118 in)	0.013	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.118 in)	0.014	in/in	ASTM D955
Water Absorption (Saturation)	2.0	%	ASTM D570
Water Absorption (Saturation, 73°F)	2.0	%	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	268000	psi	ASTM D638
Tensile Modulus	247000	psi	ISO 527-1
Tensile Strength (Yield)	7250	psi	ASTM D638
Tensile Stress (Yield)	7250	psi	ISO 527-2
Tensile Elongation (Break)	40	%	ASTM D638
Tensile Strain (Break)	40	%	ISO 527-2
Flexural Modulus	247000	psi	ASTM D790
Flexural Modulus	225000	psi	ISO 178
Flexural Strength	8410	psi	ASTM D790
Flexural Stress	8120	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	3.8	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact	1.3	ft·lb/in	ASTM D256
Notched Izod Impact Strength	2.9	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	77		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)	230	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	194	°F	ISO 75-2/A
Vicat Softening Temperature	365	°F	ASTM D1525 ²
Vicat Softening Temperature	365	°F	ISO 306/B50
Melting Temperature	432	°F	ISO 11357-3



Melting Temperature	432 °F	ASTM D3418
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	660 V/mil	ASTM D149
Dielectric Constant (60 Hz)	5.70	ASTM D150
Dissipation Factor (60 Hz)	0.015	ASTM D150
Arc Resistance	PLC 5	ASTM D495
Comparative Tracking Index (CTI)	PLC 0	UL 746A
High Amp Arc Ignition (HAI)	PLC 0	UL 746A
High Voltage Arc Tracking Rate (HVTR)	PLC 2	UL 746A
Hot-wire Ignition (HWI)	PLC 1	UL 746A
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.031 in)	V-0	UL 94
Glow Wire Flammability Index (0.04 in)	1760 °F	IEC 60695-2-12
Glow Wire Ignition Temperature (0.04 in)	1470 °F	IEC 60695-2-13

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	42.7 to 99.6 psi
Screw Speed	50 to 100 rpm

Notes

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

² Loading 2 (50 N)

