POKETONE M33-R3A000

Hyosung Chemical Corporation - *Polyketone, Aliphatic*

General Information

Product Description			
Lubricated high-flow injection molding grade			
General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Lubricant		
Features	• High Flow	• Lubricated	
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.23		ASTM D792
Density	1.23	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	68	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	64	g/10 min	ISO 1133
Molding Shrinkage - Flow			ASTM D955
0.0394 in	0.013	in/in	
0.0787 in	0.012	in/in	
0.118 in	0.016	in/in	
Molding Shrinkage - Across Flow			ASTM D955
0.0394 in	0.014	in/in	
0.0787 in	0.014	in/in	
0.118 in	0.016	in/in	
Water Absorption (Saturation)	2.3	%	ASTM D570
Water Absorption (Saturation, 73°F)	2.3	%	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	196000	psi	ISO 527-1
Tensile Strength (Yield)	6960	psi	ASTM D638
Tensile Stress (Yield)	6960	psi	ISO 527-2
Tensile Elongation (Yield)	25	%	ASTM D638
Tensile Strain (Yield)	22	%	ISO 527-2
Tensile Elongation (Break)	300	%	ASTM D638
Tensile Strain (Break)	300	%	ISO 527-2
Flexural Modulus	181000	psi	ASTM D790
Flexural Modulus	181000	psi	ISO 178
Flexural Strength	6530	psi	ASTM D790
Flexural Stress	7690	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	10	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength	No Break		ISO 179/1eU
Notched Izod Impact	7.1	ft·lb/in	ASTM D256
Notched Izod Impact Strength	10	ft·lb/in²	ISO 180/1A
Unnotched Izod Impact	No Break		ASTM D256

Unnotched Izod Impact Strength	No Break		ISO 180/1U
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness	100		ASTM D785
Shore Hardness (Shore D)	73		ISO 868
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	356	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	347	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	185	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	158	°F	ISO 75-2/A
Vicat Softening Temperature	345	°F	ASTM D1525 [2]
Vicat Softening Temperature	345	°F	ISO 306/B50
Melting Temperature	432	°F	ISO 11357-3
Melting Temperature	432	°F	ASTM D3418
CLTE - Flow (77 to 131°F)	6.4E-5	in/in/°F	ASTM E831
CLTE - Transverse (77 to 131°F)	6.3E-5	in/in/°F	ASTM E831
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	ASTM D257
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	430	V/mil	ASTM D149
Dielectric Constant (60 Hz)	5.80		ASTM D150
Dissipation Factor (60 Hz)	0.013		ASTM D150

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)