

POKETONE® M33AG2Y

Description

Flame retarded (0.8mm V-0), 5% glass-reinforced high-flow injection molding grade

Physical Properties	ASTM	Value	ISO	Value
Density	D792	1.29 g/cm ³	1183	1.29 g/cm ³
Shore D hardness	D2240		868	77
Hardness Rockwell	D785	106	2039	
Water absorption equilibrium at RH 50%	D570	0.5 %	62	0.5 %
Water absorption at Saturation	D570	2.0 %	62	2.0 %
Melt flow index 240°C/2.16kg	D1238	25 g/10 min	1133	23 ml/10 min
Mold Shrinkage	D955		294-4	
	MD, 3 mm	0.8 %		
	TD, 3 mm	1.1 %		
	MD, 2 mm	0.7 %		
	TD, 2 mm	1.0 %		
	MD, 1 mm	0.7 %		
	TD, 1 mm	0.9 %		

Mechanical Properties	ASTM	Value	ISO	Value
Tensile strength at yield	D638	53 MPa	527-1	53 MPa
Tensile modulus	D638	2,650 MPa	527-1	2,550 MPa
Tensile elongation at yield	D638	12 %	527-1	12 %
Tensile elongation at break	D638	18 %	527-1	18 %
Flexural strength	D790	79 MPa	178	78 MPa
Flexural modulus	D790	2,550 MPa	178	2,200 MPa
Notched Izod impact strength	D256	70 J/m	180/1A	6 kJ/m ²
Notched Charpy impact strength	D6110		179/1eA	6 kJ/m ²

Thermal Properties	ASTM	Value	ISO	Value
Melting temperature	D3418	222 °C	11357	222 °C
Coefficient of linear thermal expansion, 25°C to 55°C	E831		11359	
	MD	7.1×10 ⁻⁵		
	TD	10.1×10 ⁻⁵		
Vicat softening point	D1525	195 °C	306/B50	195 °C
	5 kg		50 N	
Heat deflection temperature	D648		75	
	66 psi	212 °C	0.45 MPa	207 °C
	264 psi	163 °C	1.8 MPa	150 °C

Flammability Properties

	Test Method & Condition	Value
Flame resistance	UL 94	V-0 (0.8 mm)
Glow Wire Ignition Temperature (GWIT)	IEC 60695-2-13	825 °C (0.8 mm)
Glow Wire Flammability Index (GWFI)	IEC 60695-2-12	960 °C (0.8 mm)

Electrical Properties

	Test Method & Condition	Value
Dielectric Strength (DS)	ASTM D149	29 kV/mm
Volume Resistivity (VR)	ASTM D257	10 ¹² Ω-cm
Surface Resistivity (SR)	ASTM D257	10 ¹⁷ Ω/m ²
Dielectric constant at 60Hz	ASTM D150	5.3
Dissipation factor at 60Hz	ASTM D150	0.014
Hot Wire Ignition (HWI)	UL 746A	PLC 1 (0.8 mm) PLC 0 (1.6 mm)
High Amp Arc Ignition (HAI)	UL 746A	PLC 0
High Volt arc Track Rate (HVTR)	UL 746A	PLC 2
High voltage, low current Arc Resistance (AR)	ASTM D495	PLC 5
Comparative Tracking Index (CTI)	ASTM D3638	PLC 0

Injection Molding Processing Conditions

		Value
Pre-drying	Drying temperature	80 °C
	Drying time	3 ~ 4 hr
	Suggested max moisture	0.20 %
Temperature	Nozzle temperature	240 °C
	Zone 1 temperature	230 °C
	Zone 2 temperature	220 °C
	Zone 3 temperature	215 °C
	Zone 4 temperature	210 °C
	Processing temperature	225 ~ 240 °C
	Mold temperature	60 ~ 80 °C
Pressure	Back pressure	0.294 ~ 0.686 MPa
Speed	Screw Speed	50 ~ 100 rpm

* The data listed here is not for specification warranty, but typical value.

All products purchased from or supplied by Hyosung Chemical Corporation are subject to terms and conditions set out in the contract, order acknowledgement and/or bill of loading. Values given above are simply references for representing typical level and do not expressly or impliedly guarantee anything. Neither should it be interpreted as specification limit nor sole criterion for part/tool design that is intended to have a legal binding effect. All other information, including that herein, supplied by Hyosung Chemical is considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine the product's suitability for a particular purpose. Hyosung Chemical makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent. Any references in this brochure to "Hyosung Chemical" refer to the collectivity of Hyosung Chemical engaged in the manufacture and sale of chemical products. Particular contracts are entered into by any such company individually and any warranty, representation or any other commitment provided by Hyosung Chemical is the commitment of such individual company only.