

# POKETONE® M13FG9A(M93FG9A)

## Description

50% glass-reinforced high flow injection molding grade with Food/Drinking water Compliance

Physical Properties	ASTM	Value	ISO	Value
Density	D792	1.68 g/cm <sup>3</sup>	1183	1.68 g/cm <sup>3</sup>
Shore D hardness	D2240		868	
Hardness Rockwell	D785		2039	
Water absorption equilibrium at RH 50%	D570		62	
Water absorption at Saturation	D570		62	
Melt flow index 240°C/2.16kg	D1238	25 g/10 min	1133	
	D955		294-4	
Mold Shrinkage	MD, 3 mm			
	TD, 3 mm			
	MD, 2 mm			
	TD, 2 mm			

Mechanical Properties	ASTM	Value	ISO	Value
Tensile strength at yield	D638	165 MPa	527-1	
Tensile modulus	D638		527-1	
Tensile elongation at yield	D638		527-1	
Tensile elongation at break	D638	2.0 %	527-1	
Flexural strength	D790	214 MPa	178	
Flexural modulus	D790	11,800 MPa	178	
Unnotched Izod impact strength	D256		180/1U	
Notched Izod impact strength	D256		180/1A	
Unnotched Charpy impact strength	D6110		179/1eU	
Notched Charpy impact strength	D6110		179/1eA	11 kJ/m <sup>2</sup>
Falling dart impact strength			6603-2	

Thermal Properties	ASTM	Value	ISO	Value
Melting temperature	D3418	222 °C	11357	222 °C
Coefficient of linear thermal expansion, 25 ~ 55°C	E831		11359	
Vicat softening point	D1525		306/B50	
	5 kg		50 N	
Heat deflection temperature	D648		75	
	66 psi	215 °C	0.45 MPa	
	264 psi	210 °C	1.8 MPa	

## 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.