

## POKETONE® M93FG6A

## Description

30% glass-reinforced high flow injection molding grade with Food/Drinking water Compliance

| Physical Properties                    | ASTM     | Value                  | ISO   | Value                  |
|--|----------|------------------------|-------|------------------------|
| Density                                | D792     | 1.46 g/cm <sup>3</sup> | 1183  | 1.46 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    | 46 g/10 min            | 1133  |                        |
| Mold Shrinkage                         | D955     |                        | 294-4 |                        |
|  | MD, 3 mm |                        |       |                        |
|  | TD, 3 mm |                        |       |                        |
|  | MD, 2 mm |                        |       |                        |
|  | TD, 2 mm |                        |       |                        |

| Mechanical Properties            | ASTM  | Value     | ISO     | Value    |
|----------------------------------|-------|-----------|---------|----------|
| Tensile strength at yield        | D638  | 145 MPa   | 527-1   | _        |
| Tensile modulus                  | D638  |           | 527-1   |          |
| Tensile elongation at yield      | D638  |           | 527-1   |          |
| Tensile elongation at break      | D638  | 3 %       | 527-1   |          |
| Flexural strength                | D790  | 190 MPa   | 178     |          |
| Flexural modulus                 | D790  | 7,100 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/m² |
| 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, $25 \sim 55$ °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  |        |



50 ~ 100 rpm

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

Screw Speed

Speed

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<sup>\*</sup> The data listed here is not for specification warranty, but typical value.