

POM | KEPITAL F40-03 | Standard grade

- An extremely easy-flowing grade for general injection molding
- Suitable for thin-walled precision parts

| Physical properties | Test Standard | Unit | Value |
|---------------------------------|---------------|-------------------|-------|
| Density | ISO 1183 | g/cm ³ | 1.41 |
| Melt flow rate | ISO 1133 | g/10min | 48 |
| Water absorption(23 °C, 50 %RH) | ISO 62 | % | 0.2 |

| Thermal properties | Test Standard | Unit | Value |
|---|---------------|------------------------|-------|
| Heat deflection temperature(1.8 MPa) | ISO 75 | °C | 101 |
| Flammability | UL 94 | - | HB |
| Melting point(10 °C/min) | ISO 11357 | °C | 165 |
| Coefficient of linear thermal expansion | ISO 11359 | X 10 ⁻⁵ /°C | 12 |

| Mechanical properties | Test Standard | Unit | Value |
|---|---------------|-------------------|-------|
| Tensile modulus | ISO 527 | MPa | 2,900 |
| Tensile strength | ISO 527 | MPa | 65 |
| Tensile strain at yield | ISO 527 | % | 10 |
| Strain at break | ISO 527 | % | 20 |
| Flexural strength | ISO 178 | MPa | 93 |
| Flexural modulus | ISO 178 | MPa | 2,750 |
| Charpy impact strength(Notched) @ 23°C | ISO 179/1eA | KJ/m ² | 5.0 |
| Charpy impact strength(Notched) @ -30°C | ISO 179/1eA | KJ/m ² | 4.0 |

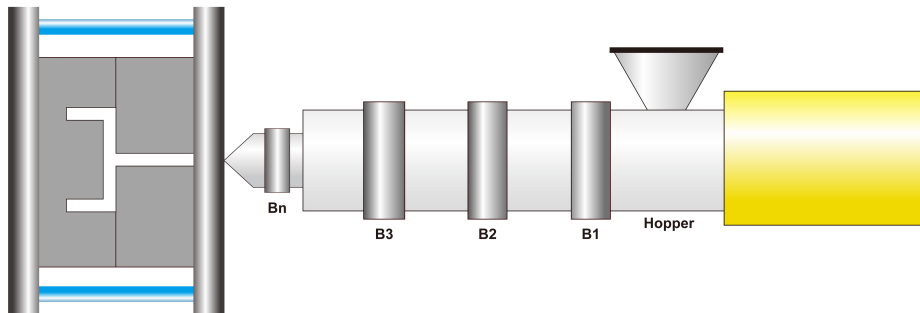
| Electrical properties | Test Standard | Unit | Value |
|-----------------------|---------------|-------|--------------------|
| Surface resistivity | IEC 60093 | Ω | 1x10 ¹⁶ |
| Volume resistivity | IEC 60093 | Ω/ cm | 1x10 ¹⁴ |
| Dielectric strength | IEC 60243-1 | kV/mm | 19 |

| Other | Test Standard | Unit | Value |
|--|---------------|------|-------|
| Mold shrinkage(flow direction, Φ = 100 mm, t = 3 mm) | KEP Method | % | 2.0 |

| General information | Test Standard | Unit | Value |
|----------------------|---------------|------|-------|
| Polymer abbreviation | ISO 1043 | - | POM |

Revision No : 2 (2015-07-22)

Injection molding condition



Pre-drying (Suggested max. moisture : 0.1%)

It is recommend to dry material at 80°C ~ 100°C(176°F ~ 212°F) for 3 h ~ 4 h if necessary.

Temperature

Mold temperature : 60 °C ~ 80 °C(140 °F ~ 176 °F)

Barrel temperature : 170 °C ~ 210 °C(338 °F ~ 410 °F)

| Mold | Bn(Nozzle) | B3(Metering) | B2(Compression) | B1(Feeding) | Hopper |
|------------|--------------|--------------|-----------------|--------------|------------|
| 60 ~ 80 °C | 180 ~ 210 °C | 190 ~ 200 °C | 180 ~ 190 °C | 170 ~ 180 °C | 60 ~ 80 °C |

Plastification

Screw speed : 150 mm/s ~ 200 mm/s

Back pressure : Maximum 20 bar

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