

POM | KEPITAL F20-03 | Standard grade

- A medium-viscosity grade for general injection molding
- A general grade for injection molding applications

| Physical properties | Test Standard | Unit | Value |
|---------------------------------|---------------|-------------------|-------|
| Density | ISO 1183 | g/cm ³ | 1.41 |
| Melt flow rate | ISO 1133 | g/10min | 9 |
| 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 | 100 |
| Flammability | UL 94 | – | HB |
| Melting point | 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 | 2,750 |
| Tensile strength | ISO 527 | MPa | 65 |
| Tensile strain at yield | ISO 527 | % | 10 |
| Strain at break | ISO 527 | % | 35 |
| Flexural strength | ISO 178 | MPa | 87 |
| Flexural modulus | ISO 178 | MPa | 2,550 |
| Charpy impact strength(Notched) @ 23°C | ISO 179/1eA | kJ/m ² | 6.5 |
| Charpy impact strength(Notched) @ -30°C | ISO 179/1eA | kJ/m ² | 5.5 |

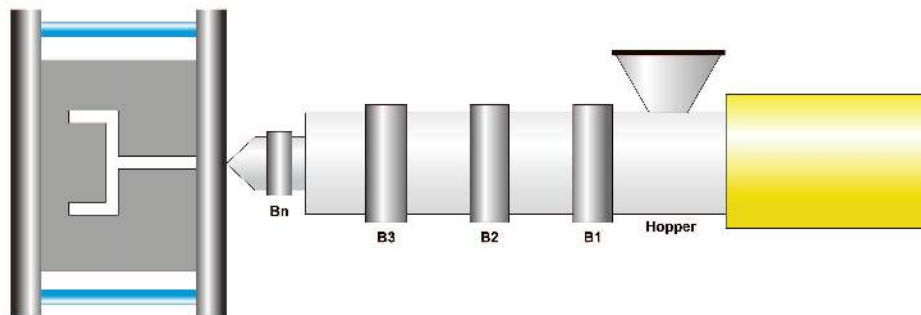
| Electrical properties | Test Standard | Unit | Value |
|-----------------------|---------------|-------|--------------------|
| Surface resistivity | IEC 60093 | Ω | 1x10 ¹⁶ |
| Volume resistivity | IEC 60093 | Ω/ cm | 1x10 ¹⁴ |
| Dielectric strength | IEC 60243-1 | kV/mm | 19 |

| 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 : 3 (2016-10-01)

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 |
| 140 ~ 176 °F | 356 ~ 410 °F | 374 ~ 392 °F | 356 ~ 374 °F | 338 ~ 356 °F | 140 ~ 176 °F |

Plastification

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

Back pressure : Maximum 20 bar

Contact information

Headquarters

14th Floor, OCI BLDG., Sogong-ro, Jung-gu Seoul, 04532,
Republic of Korea
Tel 82-2-728-7441 ~ 8, Telefax 82-2-714-9235

KEP Europe GmbH

Rheingaustrasse 190-196 D-65203 Wiesbaden Germany
Tel +49(0) 611 962-7381, Telefax +49 (0)611 962-9132

KEP Americas

106 North Denton Tap Road Suite 210-202 Coppell, TX
75019, USA
Tel +1 888 KEPITAL, Telefax +1 888 537-3291

KEP China

Room T2-903C, No.2 building. SOHO Tianshan Plaza.
No.1717 Tianshan Rd. Changning District. Shanghai. China
Tel +86 21 6237-1972, Telefax +86 21 6237-1803

Disclaimer

Notice to users : The information contained in this data sheet is based on our current knowledge and experience, so it may change as new knowledge and experience becomes available. This information is based on only above-mentioned product produced in Korea Engineering Plastics Co., Ltd. ("KEP") through relevant test methods and conditions and doesn't relate to any products made of this product with the inclusion of other additives, such as processing aids or colorants. This information should not be construed as a promise or guarantee of specific properties of this product described or its suitability for a particular application, so users make their own determination as to its suitability to their purposes prior to use this product. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of this product. This product is not intended for use in medical and dental implants and users should meet all safety and health standards. KEP makes no warranty and assumes no liability in connection with any use of this information.