

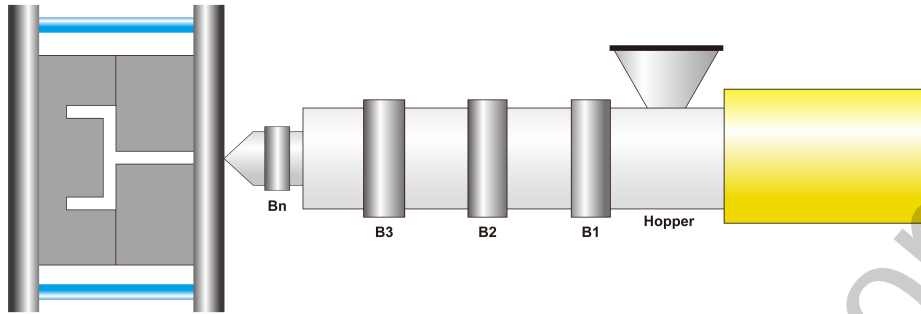
## POM | KEPITAL F20-03 | Standard grade

- 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 <sup>3</sup>      | 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(10 °C/min)                             | ISO 11357     | °C                     | 165                |
| Coefficient of linear thermal expansion              | ISO 11359     | X 10 <sup>-5</sup> /°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 <sup>2</sup>      | 6.5                |
| Charpy impact strength(Notched) @ -30°C              | ISO 179/1eA   | KJ/m <sup>2</sup>      | 5.5                |
| Electrical properties                                | Test Standard | Unit                   | Value              |
| Surface resistivity                                  | IEC 60093     | Ω                      | 1x10 <sup>16</sup> |
| Volume resistivity                                   | IEC 60093     | Ω/ cm                  | 1x10 <sup>14</sup> |
| 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   |
| 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

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