

## POM | KEPITAL TE-22 | Impact modified grade

- A toughened, medium-viscosity grade for general injection molding
- Suitable for applications requiring high impact resistance, reduced impact noise, and quality surface

| Physical properties             | Test Standard | Unit              | Value |
|---------------------------------|---------------|-------------------|-------|
| Density                         | ISO 1183      | g/cm <sup>3</sup> | 1.37  |
| Melt flow rate                  | ISO 1133      | g/10min           | 8.5   |
| Water absorption(23 °C, 50 %RH) | ISO 62        | %                 | 0.23  |

| Thermal properties                      | Test Standard | Unit                   | Value |
|---|---------------|------------------------|-------|
| Heat deflection temperature(1.8 MPa)    | ISO 75        | °C                     | 76    |
| 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 | 13    |

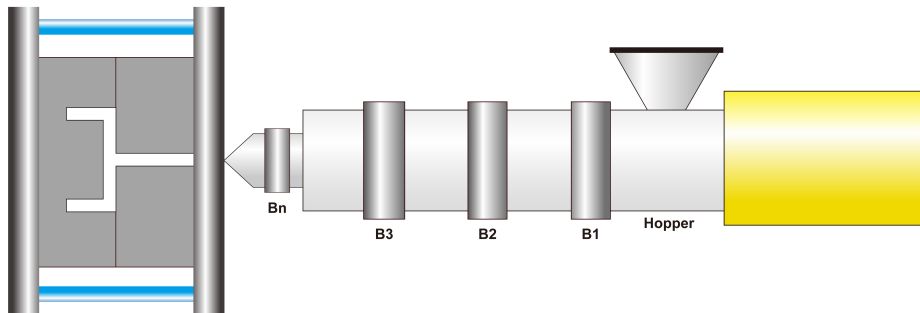
| Mechanical properties                  | Test Standard | Unit              | Value |
|--|---------------|-------------------|-------|
| Tensile stress                         | ISO 527       | MPa               | 51    |
| Tensile strain at yield                | ISO 527       | %                 | 11.0  |
| Nominal strain at break                | ISO 527       | %                 | >50   |
| Flexural strength                      | ISO 178       | MPa               | 68    |
| Flexural modulus                       | ISO 178       | MPa               | 1,900 |
| Charpy impact strength(Notched) @ 23°C | ISO 179/1eA   | kJ/m <sup>2</sup> | 11.0  |

| 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 | -                  |

| Other  | Test Standard | Unit | Value |
|--|---------------|------|-------|
| Mold shrinkage(flow direction, Φ = 100 mm, t = 3 mm) | KEP Method    | %    | 1.8   |

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## 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 : 40 °C ~ 60 °C(104 °F ~ 140 °F)

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

| Mold         | Bn(Nozzle)   | B3(Metering) | B2(Compression) | B1(Feeding)  | Hopper       |
|--------------|--------------|--------------|-----------------|--------------|--------------|
| 40 ~ 60 °C   | 180 ~ 210 °C | 190 ~ 200 °C | 180 ~ 190 °C    | 170 ~ 180 °C | 60 ~ 80 °C   |
| 104 ~ 140 °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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