

## POM | KEPITAL F20-52 | UV & weather resistance grade

- A UV-stabilized medium-viscosity grade for general injection molding.
- Developed for applications in automotive interiors and exposed parts.

Physical properties	Test Standard	Unit	Value
Density	ISO 1183	g/cm <sup>3</sup>	1.41
Melt flow rate	ISO 1133	g/10min	10
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	92
Flammability	UL 94	–	HB
Melting point	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 modulus	ISO 527	MPa	2,600
Tensile stress	ISO 527	MPa	62
Tensile strain at yield	ISO 527	%	10
Nominal strain at break	ISO 527	%	34
Flexural strength	ISO 178	MPa	83
Flexural modulus	ISO 178	MPa	2,350
Charpy impact strength(Notched) @ 23°C	ISO 179/1eA	kJ/m <sup>2</sup>	6.0
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 : 5 (2019-09-10)

## Injection molding condition



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

It is recommend to dry material at 80°C ~ 90°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

### 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.