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^3	1.41
Melt flow rate	ISO 1133	g/10min	10
Water absorption(23 ℃, 50 %RH)	ISO 62	%	0.2

Thermal properties	Test Standard	Unit	Value
Heat deflection temperature(1.8 MPa)	ISO 75	℃	92
Flammability	UL 94	–	HB
Melting point	ISO 11357	℃	165
Coefficient of linear thermal expansion	ISO 11359	X 10^{-5}/℃	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℃	ISO 179/1eA	kJ/m^2	6.0
Charpy impact strength(Notched) @ -30℃	ISO 179/1eA	kJ/m^2	5.5

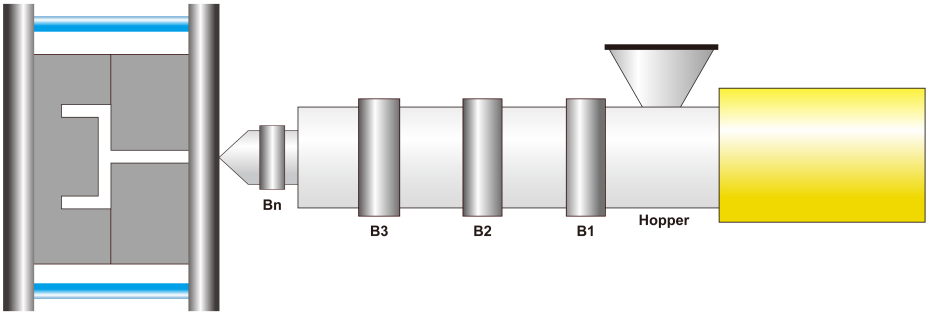
Electrical properties	Test Standard	Unit	Value
Surface resistivity	IEC 60093	Ω	$1X10^{16}$
Volume resistivity	IEC 60093	Ω/ cm	$1X10^{14}$
Dielectric strength	IEC 60243-1	kV/mm	19

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 : 5 (2019-09-10)

Injection molding condition



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

It is recommend to dry material at 80℃ ~ 90℃(176℉ ~ 212℉) for 3 h ~ 4 h if necessary.

Temperature

Mold temperature : 60 ℃ ~ 80 ℃(140 ℉ ~ 176 ℉)
Barrel temperature : 170 ℃ ~ 210 ℃(338 ℉ ~ 410 ℉)

Mold	Bn(Nozzle)	B3(Metering)	B2(Compression)	B1(Feeding)	Hopper
60 ~ 80 ℃	180 ~ 210 ℃	190 ~ 200 ℃	180 ~ 190 ℃	170 ~ 180 ℃	60 ~ 80 ℃
140 ~ 176 ℉	356 ~ 410 ℉	374 ~ 392 ℉	356 ~ 374 ℉	338 ~ 356 ℉	140 ~ 176 ℉

Plastification

Screw speed : 150 mm/s ~ 200 mm/s
Back pressure : Maximum 20 bar

Disclaimer