

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	_	НВ
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 stress	ISO 527	MPa	65
Tensile strain at yield	ISO 527	%	10
Nominal strain at break	ISO 527	%	32
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, $\Phi = 100 \text{ mm}$, $t = 3 \text{ mm}$)	KEP Method	%	2.0

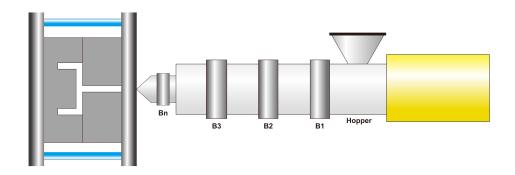
General information	Test Standard	Unit	Value
Polymer abbreviation	ISO 1043	-	POM

Revision No: 5 (2019-09-10)

Print Date: 2019-12-31



Injection molding condition



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

It is recommend to dry material at $80^{\circ}\text{C} \sim 90^{\circ}\text{C}(176^{\circ}\text{F} \sim 212^{\circ}\text{F})$ for 3 h ~ 4 h if necessary.

Temperature

Mold temperature : $60 \,^{\circ}\text{C} \sim 80 \,^{\circ}\text{C} (140 \,^{\circ}\text{F} \sim 176 \,^{\circ}\text{F})$ Barrel temperature : $170 \,^{\circ}\text{C} \sim 210 \,^{\circ}\text{C} (338 \,^{\circ}\text{F} \sim 410 \,^{\circ}\text{F})$

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

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Print Date: 2019-12-31