POM | KEPITAL FM2020 | Friction & wear resistance grade

- A MoS_2-modified wear-resistance grade for general injection molding

- Suitable for parts requiring strong friction and wear resistance and high stiffness

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

Physical properties	Test Standard	Unit	Value
Water absorption(23 ℃, 50 %RH)	ISO 62	%	0.2
Density	ISO 1183	g/cm^3	1.43
Melt flow rate	ISO 1133	g/10min	11

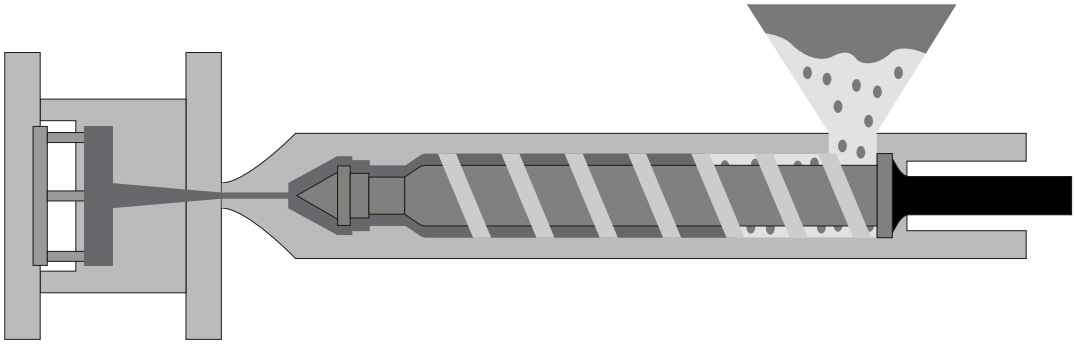
Thermal properties	Test Standard	Unit	Value
Melting point (10 ℃/min)	ISO 11357	℃	165
Heat deflection temperature (1.8 MPa)	ISO 75	℃	105
Flammability	UL 94	–	HB
Coefficient of linear thermal expansion	ISO 11359	X 10^{-5}/℃	13

Mechanical properties	Test Standard	Unit	Value
Tensile stress	ISO 527	MPa	65
Tensile strain at yield	ISO 527	%	9.5
Nominal strain at break	ISO 527	%	20
Flexural strength	ISO 178	MPa	90
Flexural modulus	ISO 178	MPa	2,690
Charpy impact strength(Notched) @ 23℃	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	-

Other	Test Standard	Unit	Value
Mold shrinkage (flow direction, t = 2 mm)	ISO 294-4	%	2.1

Injection molding condition



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

Screw Speed

150 mm/s ~ 200 mm/s

Back Pressure

Maximum 20 bar

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