

POM | KEPITAL F10-03H | High-stiffness grade

- A stiffness-improved(high-viscosity) grade for general injection molding.
- Features greater stiffness compared to general POM copolymer.

Physical properties	Test Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.41
Melt flow rate	ISO 1133	g/10min	3
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	–	HB
Melting point	ISO 11357	°C	170
Coefficient of linear thermal expansion	ISO 11359	X 10 ⁻⁵ /°C	12

Mechanical properties	Test Standard	Unit	Value
Tensile modulus	ISO 527	MPa	2,800
Tensile strength	ISO 527	MPa	68
Tensile strain at yield	ISO 527	%	12
Strain at break	ISO 527	%	40
Flexural strength	ISO 178	MPa	90
Flexural modulus	ISO 178	MPa	2,650
Charpy impact strength(Notched) @ 23°C	ISO 179/1eA	kJ/m ²	7.0
Charpy impact strength(Notched) @ -30°C	ISO 179/1eA	kJ/m ²	6.5

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	%	2.2

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

Revision No : 3 (2016-10-01)

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 : 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

Contact information

Headquarters

Mapo-daero 119 (Gongdeok-dong), Mapo-gu, Seoul, Korea
Tel 82-2-707-6840 ~ 8, Telefax 82-2-714-9235

KEP Europe GmbH

Rheingastrasse 190-196 D-65203 Wiesbaden Germany
Tel +49(0) 611 962-7381, Telefax +49 (0)611 962-9132

KEP Americas

106 North Denton Tap Road Suite 210-202 Coppell, TX
75019, USA
Tel +1 888 KEPITAL, Telefax +1 888 537-3291

KEP China

A1905, HongQiao Nanfeng Plaza, 100 Zunyi Road, Shanghai,
China
Tel +86 21 6237-1972, Telefax +86 21 6237-1803

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