

POM | KEPITAL FG2025 | Reinforced · filled grade

- A 25% glass fiber-reinforced grade for general injection molding

- Suitable for parts requiring extremely high strength, high stiffness, high deflection temperature, and excellent creep resistance

Physical properties	Test Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.59
Melt flow rate	ISO 1133	g/10min	7
Water absorption(23 °C, 50 %RH)	ISO 62	%	0.2

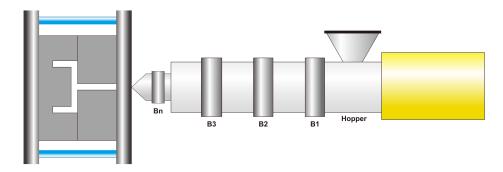
Thermal properties	Test Standard	Unit	Value
Heat deflection temperature(1.8 MPa)	ISO 75	°C	162
Flammability	UL 94	_	НВ
Melting point(10 °C/min)	ISO 11357	°C	165
Coefficient of linear thermal expansion	ISO 11359	X 10 ⁻⁵ /°C	3

Mechanical properties	Test Standard	Unit	Value
Tensile modulus	ISO 527	MPa	9,000
Tensile strength	ISO 527	MPa	160
Tensile strain at yield	ISO 527	%	-
Strain at break	ISO 527	%	3
Flexural strength	ISO 178	MPa	220
Flexural modulus	ISO 178	MPa	8,250
Charpy impact strength(Notched) @ 23°C	ISO 179/1eA	kJ/m ²	8.0
Charpy impact strength(Notched) @ -30°C	ISO 179/1eA	kJ/m ²	8.0

Electrical properties	Test Standard	Unit	Value
Surface resistivity	IEC 60093	Ω	$1 x 10^{16}$
Volume resistivity	IEC 60093	Ω/ cm	$1 x 10^{14}$
Dielectric strength	IEC 60243-1	kV/mm	23
Other	Test Standard	Unit	Value
Other Mold shrinkage(flow direction, $\Phi = 100$ mm, t = 3 mm)	Test Standard KEP Method	Unit %	Value 0.5

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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 : $60 \degree C \sim 80 \degree C(140 \degree F \sim 176 \degree F)$ Barrel temperature : $170 \degree C \sim 210 \degree C(338 \degree F \sim 410 \degree F)$

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	KEP Americas		
Mapo-daero 119 (Gongdeok-dong), Mapo-gu, Seoul, Korea Tel 82-2-707-6840 ~ 8, Telefax 82-2-714-9235	106 North Denton Tap Road Suite 210-202 Coppell, TX 75019, USA Tel +1 888 KEPITAL, Telefax +1 888 537-3291		
KEP Europe GmbH	KEP China		
Rheingaustrasse 190-196 D-65203 Wiesbaden Germany Tel +49(0) 611 962-7381, Telefax +49 (0)611 962-9132	A1905, HongQiao Nanfeng Plaza, 100 Zunyi Road, Shanghai, China Tel +86 21 6237-1972, Telefax +86 21 6237-1803		

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