

## PBT | KEPEX 4345GF | Glass fiber reinforced grade

- KEPEX 4345GF is a glass fiber 45%-reinforced PET grade.
- It has superior injection molding, mechanical, and thermal characteristics.
- It is suitable for automotive and electrical & electronics parts requiring high stiffness and heat resistance.

Physical properties	Test Standard	Unit	Value
Filler contents	ISO 1172	%	45
Specific gravity	ISO 1183	-	1.70
Water absorption(23 °C, 50 %RH)	ISO 62	%	0.03~0.07

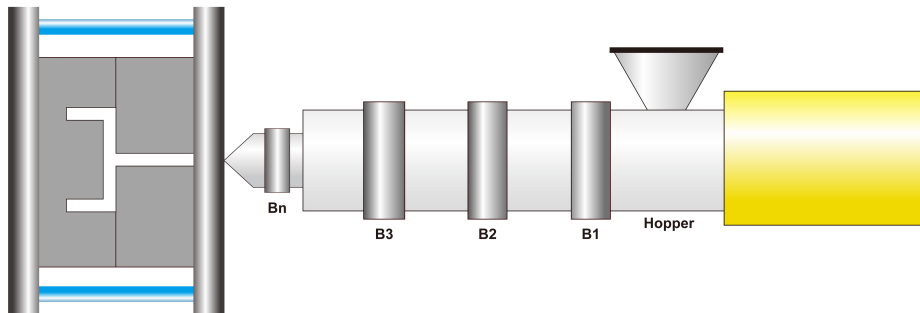
Thermal properties	Test Standard	Unit	Value
Melting point(10 °C/min)	ISO 11357	°C	250
Heat deflection temperature(0.45 MPa)	ISO 75	°C	250
Heat deflection temperature(1.8 MPa)	ISO 75	°C	225
Flammability(t = 0.8 mm)	UL 94	Class	HB

Mechanical properties	Test Standard	Unit	Value
Tensile stress	ISO 527	MPa	185
Elongation at break	ISO 527	%	2.0
Tensile modulus	ISO 527	MPa	16000
Flexural strength	ISO 178	MPa	280
Flexural modulus	ISO 178	MPa	15200
Charpy impact strength(Notched) @ 23°C	ISO 179/1eA	kJ/m <sup>2</sup>	13.0
Charpy impact strength(Notched) @ -30°C	ISO 179/1eA	kJ/m <sup>2</sup>	10.0
Rockwell Hardness(R-Scale)	ISO 2039	-	118

Electrical properties	Test Standard	Unit	Value
Permittivity(60 Hz)	ASTM D150	-	3.4
Volume resistivity	IEC 60093	Ω/ cm	10 <sup>16</sup>

Revision No : 1 (2015-02-13)

## Injection molding condition



### Pre-drying (Suggested max. moisture : 0.05%)

It is recommend to dry material at 120°C ~ 130°C(248°F ~ 266°F) for 3 h ~ 5 h at dryer.

### Temperature

Mold temperature : 70 °C ~ 90 °C(158 °F ~ 194 °F)

Barrel temperature : 260 °C ~ 290 °C(500 °F ~ 554 °F)

Mold	Bn(Nozzle)	B3(Metering)	B2(Compression)	B1(Feeding)	Hopper
70 ~ 90 °C	290 °C	280 °C	270 °C	260 °C	60 ~ 80 °C
158 ~ 194 °F	554 °F	536 °F	518 °F	500 °F	140 ~ 176 °F

### Plastification

Screw speed : 80 ~ 120 rpm

Back pressure : 5 ~ 10 kgf/cm<sup>2</sup>

### Disclaimer

Notice to users : The information contained in this data sheet is based on our current knowledge and experience, so it may change as new knowledge and experience becomes available. This information is based on only above-mentioned product produced in Korea Engineering Plastics Co., Ltd. ("KEP") through relevant test methods and conditions and doesn't relate to any products made of this product with the inclusion of other additives, such as processing aids or colorants. This information should not be construed as a promise or guarantee of specific properties of this product described or its suitability for a particular application, so users make their own determination as to its suitability to their purposes prior to use this product. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of this product. This product is not intended for use in medical and dental implants and users should meet all safety and health standards. KEP makes no warranty and assumes no liability in connection with any use of this information.