



# Rynite® 545K BK504

## THERMOPLASTIC POLYESTER RESIN

Rynite® 545K BK504 is a 45% Glass Reinforced Polyethylene Terephthalate with High Stiffness and Creep Resistance

### Product information

Resin Identification	PET-GF45	ISO 1043
Part Marking Code	>PET-GF45<	ISO 11469

### Rheological properties

Moulding shrinkage, parallel	0.2 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.8 %	ISO 294-4, 2577

### Typical mechanical properties

Tensile Modulus	15300 MPa	ISO 527-1/-2
Stress at break	188 MPa	ISO 527-1/-2
Strain at break	1.9 %	ISO 527-1/-2
Flexural Modulus	14400 MPa	ISO 178
Flexural Strength	300 MPa	ISO 178
Charpy notched impact strength, 23°C	10 kJ/m <sup>2</sup>	ISO 179/1eA
Poisson's ratio	0.33 -	

### Thermal properties

Melting temperature, 10°C/min	248 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	233 °C	ISO 75-1/-2

### Other properties

Density	1710 kg/m <sup>3</sup>	ISO 1183
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### Injection

Drying Recommended	yes
Drying Temperature	120 °C
Drying Time, Dehumidified Dryer	4 - 6 h
Processing Moisture Content	≤0.02 <sup>[1]</sup> %
Melt Temperature Optimum	285 °C
Min. melt temperature	280 °C
Max. melt temperature	300 °C
Max. screw tangential speed	0.2 m/s
Mold Temperature Optimum	130 °C
Min. mould temperature	120 °C
Max. mould temperature	140 <sup>[2]</sup> °C
Ejection temperature	170 °C

[1]: Lower moisture values will increase strength and toughness.

[2]: (6mm - 1mm thickness)



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