

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, 5mm/min	188 MPa	ISO 527-1/-2
Strain at break, 5mm/min	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/m²	ISO 179/1eA
Poisson's ratio	0.33	

Thermal properties

Melting temperature, 10 °C/min	248 °C	ISO 11357-1/-3
Glass transition temperature, 10 °C/min	90 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	233 °C	ISO 75-1/-2

Other properties

Density	1710 kg/m³	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 ^[1] %	
Melt Temperature Optimum	285 °C	Internal
Min. melt temperature	280 °C	
Max. melt temperature	300 °C	
Screw tangential speed	≤0.2 m/s	
Mold Temperature Optimum	130 °C	
Min. mould temperature	120 °C	
Max. mould temperature	140 ^[2] °C	
Ejection temperature	170 °C	Internal

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

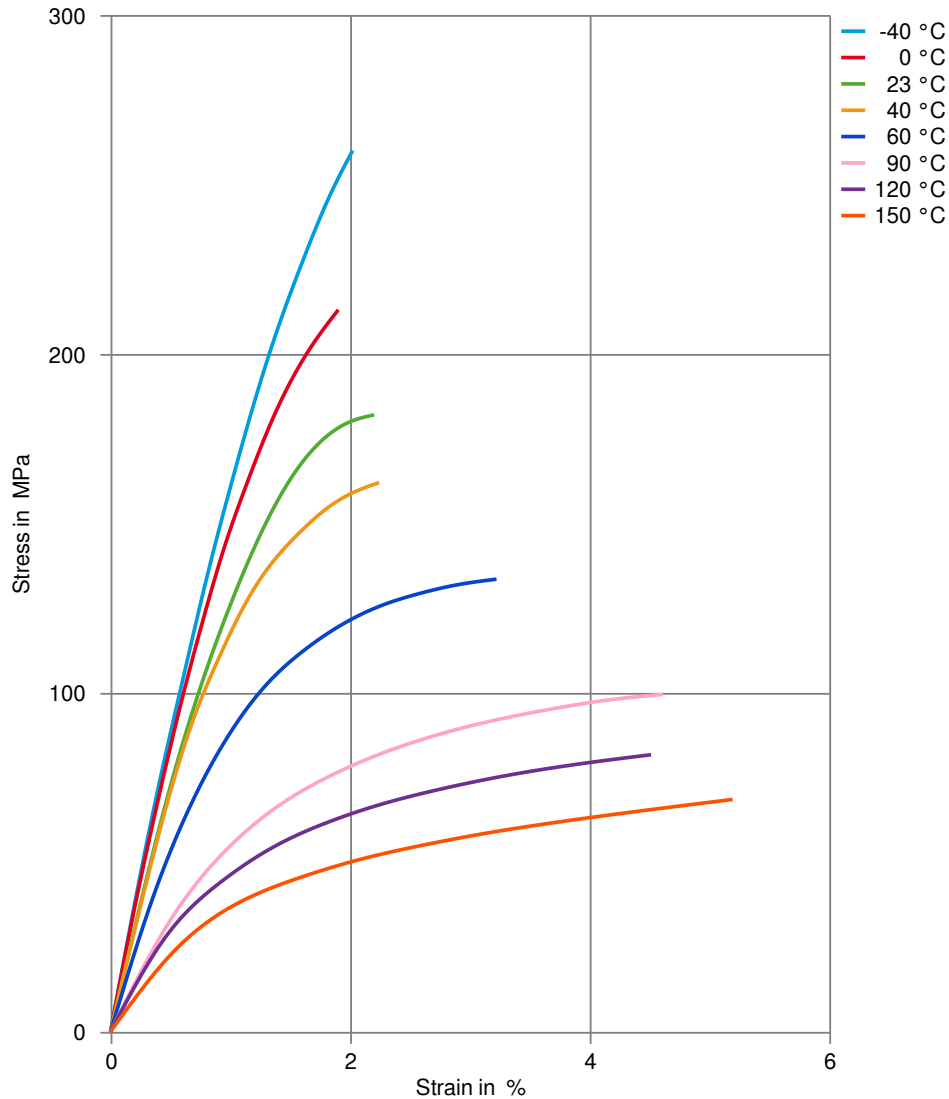


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[2]: (6mm - 1mm thickness)

Stress-strain
(measured on Rynite® 545 NC010)



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Secant modulus-strain
(measured on Rynite® 545 NC010)

