

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	16000 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	180 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2 %	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 ²	ISO 179/1eA
Poisson's ratio	0.33	

Thermal properties

Melting temperature, 10°C/min	249 °C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	90 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	227 °C	ISO 75-1/-2

Physical/Other properties

Density	1710 kg/m ³	ISO 1183
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VDA Properties

Weather stability delta I	8	DIN 53236
Weather stability delta a	-0.3	DIN 53236
Weather stability delta b	-0.5	DIN 53236
Weather stability delta E	8	DIN 53236
Weather stability grey scale	2-3	ISO 105-A02

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
Min. melt temperature	280 °C
Max. melt temperature	300 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	130 °C

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Min. mould temperature	120 °C
Max. mould temperature	140 ^[2] °C
Ejection temperature	170 °C

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

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

Characteristics

Processing

Injection Moulding

Automotive

OEM

Stellantis - Chrysler

STANDARD

MS.50103 / CPN-5251

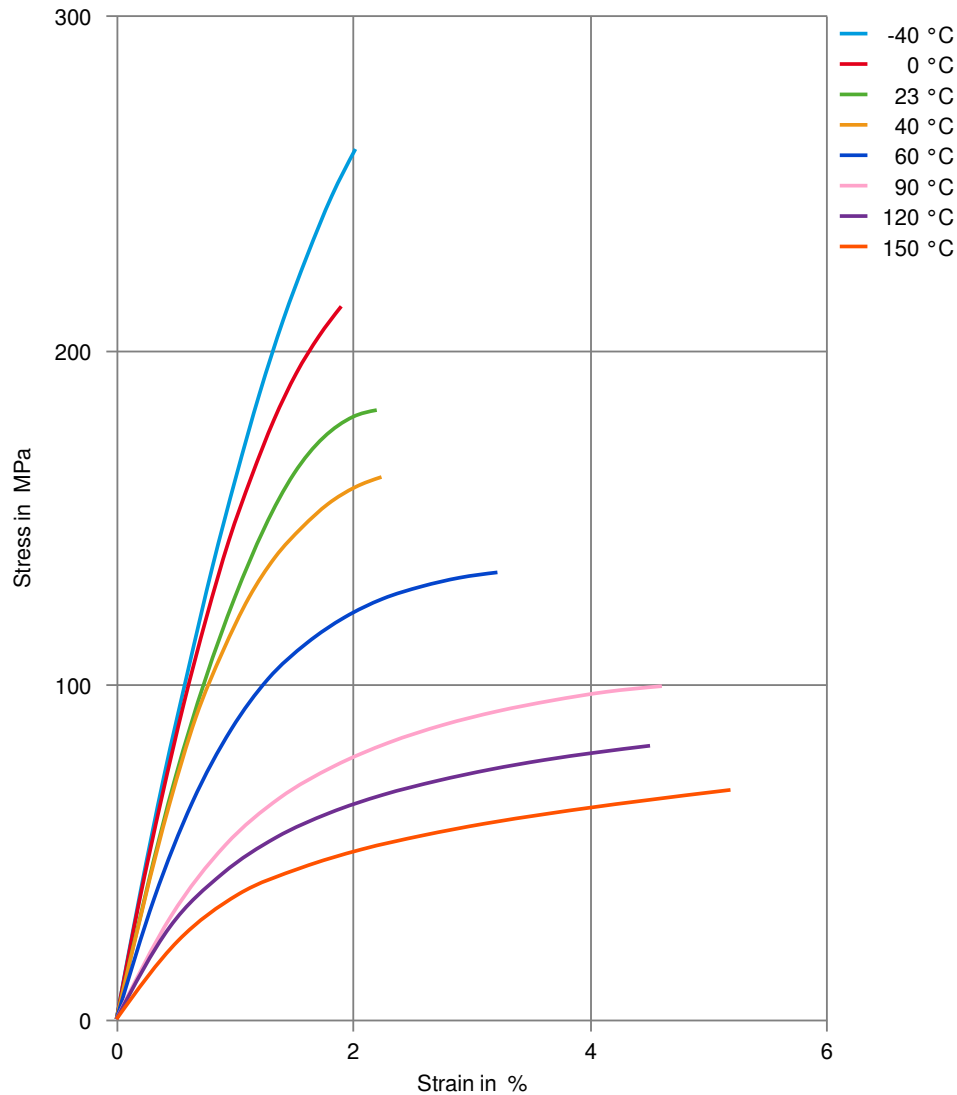
ADDITIONAL INFORMATION

Black

Rynite® 545K BK504

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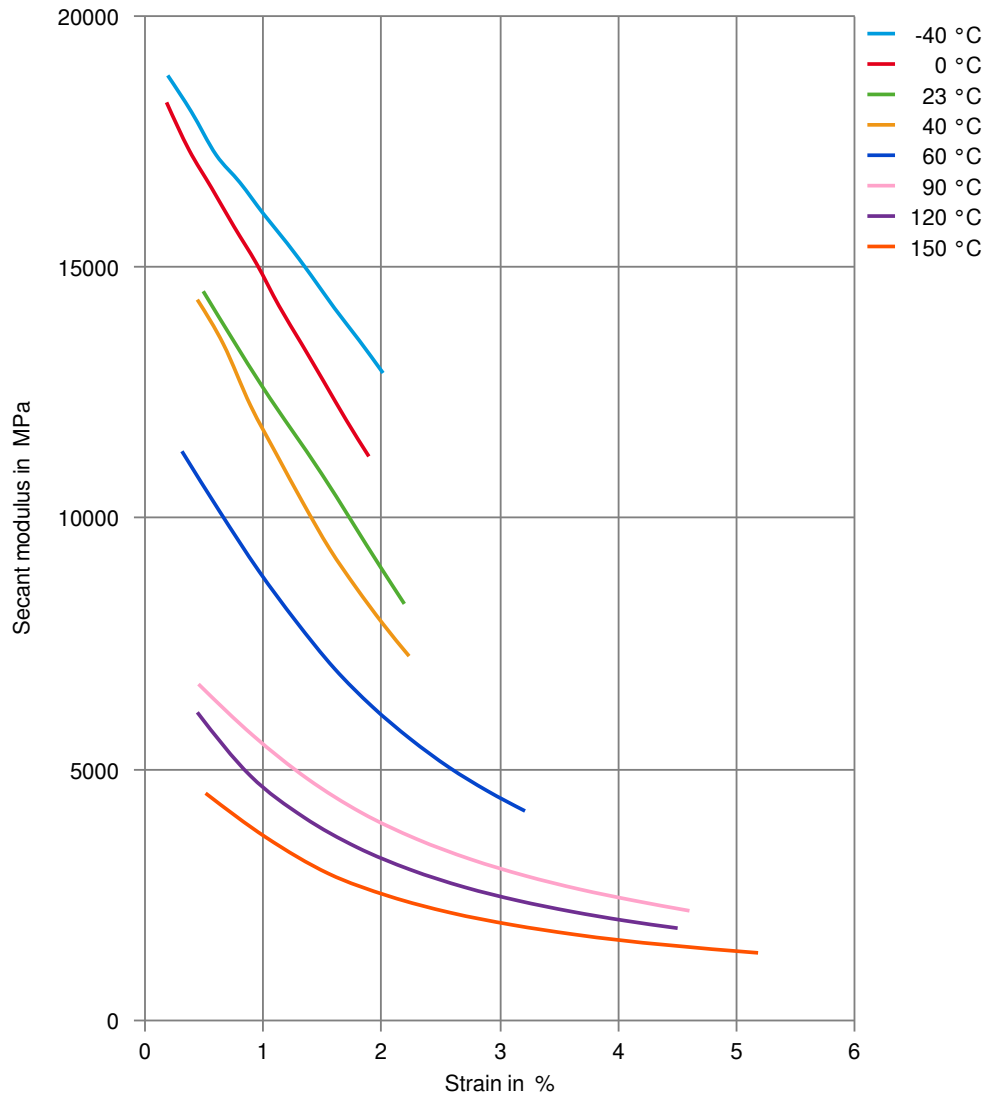
Stress-strain
(measured on Rynite® 545 NC010)



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



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