



Rynite® 935SUV BK593

THERMOPLASTIC POLYESTER RESIN

Common features of Rynite® thermoplastic polyester include mechanical and physical properties such as excellent balance of strength and stiffness, dimensional stability, creep resistance, heat resistance, high surface gloss and good inherent electrical properties at elevated temperature. It can be processed over a broad temperature range and has excellent flow properties.

Rynite® thermoplastic polyester resins are typically used in demanding applications in the automotive, electrical and electronics, appliances where they successfully replace metals and thermosets, as well as other thermoplastic polymers.

Rynite® 935SUV BK593 is a 35% mica/glass reinforced, UV stabilized, modified polyethylene terephthalate resin with low warpage, developed for long-term outdoor applications.

Product information

Resin Identification	PET-(MD+GF)35	ISO 1043
Part Marking Code	>PET-(MD+GF)35<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.3 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.7 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	9700 MPa	ISO 527-1/-2
Stress at break	80 MPa	ISO 527-1/-2
Strain at break	2.3 %	ISO 527-1/-2
Charpy impact strength, 23°C	24 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	5 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.34 -	

Thermal properties

Melting temperature, 10°C/min	252 °C	ISO 11357-1/-3
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Flammability

Glow Wire Flammability Index, 0.4mm	750 °C	IEC 60695-2-12
Glow Wire Flammability Index, 0.75mm	750 °C	IEC 60695-2-12
Glow Wire Flammability Index, 1mm	750 °C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5mm	750 °C	IEC 60695-2-12
Glow Wire Flammability Index, 3mm	960 °C	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	750 °C	IEC 60695-2-13
Glow Wire Ignition Temperature, 0.4mm	750 °C	IEC 60695-2-12
Glow Wire Ignition Temperature, 1mm	750 °C	IEC 60695-2-13
Glow Wire Ignition Temperature, 1.5mm	750 °C	IEC 60695-2-13



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Glow Wire Ignition Temperature, 3mm	875 °C	IEC 60695-2-13
Glow Wire Temperature, No Flame, 0.75mm	750 °C	IEC 60335-1
Glow Wire Temperature, No Flame, 1mm	750 °C	IEC 60335-1
Glow Wire Temperature, No Flame, 1.5mm	750 °C	IEC 60335-1
Glow Wire Temperature, No Flame, 3mm	850 °C	IEC 60335-1
FMVSS Class	B -	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/min	ISO 3795 (FMVSS 302)

Other properties

Density	1570 kg/m ³	ISO 1183
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VDA Properties

Fogging, G-value (condensate)	0.1 mg	ISO 6452
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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
Min. melt temperature	280 °C
Max. melt temperature	300 °C
Max. screw tangential speed	0.2 m/s
Mold Temperature Optimum	110 °C
Min. mould temperature	100 °C
Max. mould temperature	120 ^[2] °C
Hold pressure range	≥80 MPa
Hold pressure time	4 s/mm
Back pressure	As low as possible MPa
Ejection temperature	170 °C

[1]: At levels above 0.02%, strength and toughness will decrease, even though parts may not exhibit surface defects.

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

Characteristics

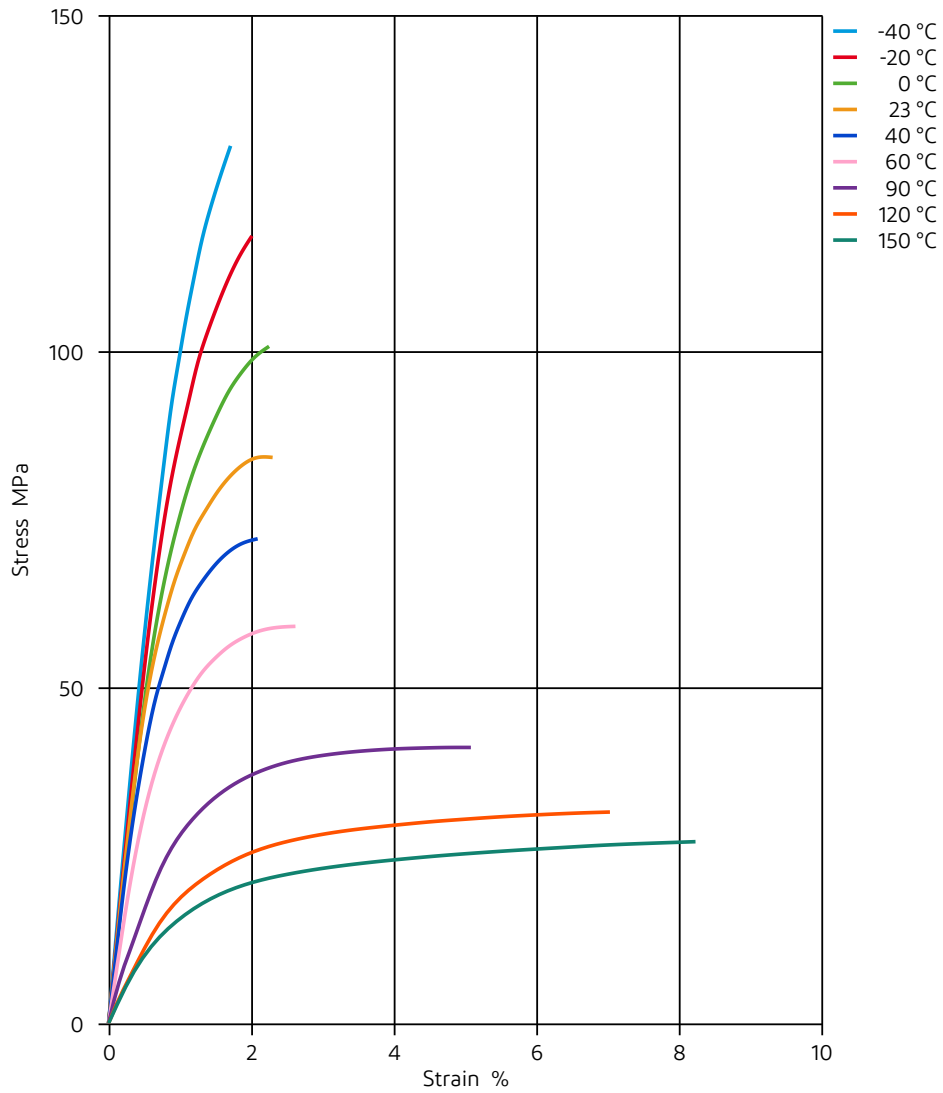
Additives	Release agent
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Stress-strain

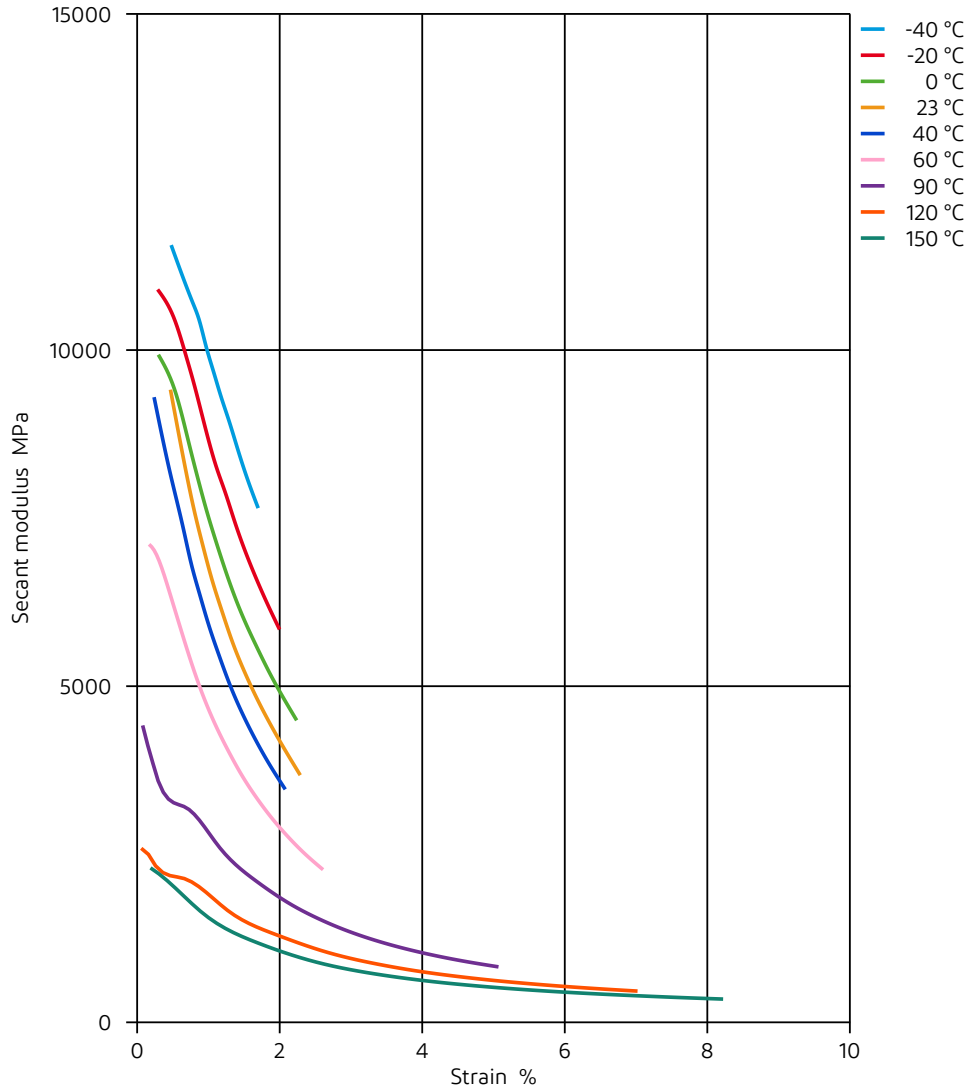




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Secant modulus-strain



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