

Rynite® SST35 BK503

THERMOPLASTIC POLYESTER RESIN

Rynite® SST35 BK503 is a 35% Glass Reinforced, Toughened, Polyethylene Terephthalate with Improved Impact and Stiffness

Product information

Resin Identification	PET-HI GF35	ISO 1043
Part Marking Code	>PET-HI GF35<	ISO 11469

Rheological properties

Moulding shrinkage range, parallel	0.2 - 0.4 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.6 - 1 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	7500 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	94 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	6 %	ISO 527-1/-2
Flexural modulus	6800 MPa	ISO 178
Charpy impact strength, 23°C	70 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	21 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	14 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	22 kJ/m ²	ISO 180/1A
Izod impact strength, 23°C	60 kJ/m ²	ISO 180/1U
Poisson's ratio	0.34	

Thermal properties

Temperature of deflection under load, 1.8 MPa	210 °C	ISO 75-1/-2
RTI, electrical, 0.75mm	150 °C	UL 746B
RTI, electrical, 1.5mm	150 °C	UL 746B
RTI, electrical, 3.0mm	150 °C	UL 746B
RTI, impact, 0.75mm	150 °C	UL 746B
RTI, impact, 1.5mm	150 °C	UL 746B
RTI, impact, 3.0mm	150 °C	UL 746B
RTI, strength, 0.75mm	150 °C	UL 746B
RTI, strength, 1.5mm	150 °C	UL 746B
RTI, strength, 3.0mm	150 °C	UL 746B

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	IEC 60695-11-10
Thickness tested	1.5 mm	IEC 60695-11-10
UL recognition	yes	UL 94
Burning Behav. at thickness h	HB class	IEC 60695-11-10
Thickness tested	0.75 mm	IEC 60695-11-10
UL recognition	yes	UL 94
Glow Wire Flammability Index, 0.75mm	775 °C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5mm	725 °C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	825 °C	IEC 60695-2-12

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Glow Wire Ignition Temperature, 0.75mm	800 °C	IEC 60695-2-13
Glow Wire Ignition Temperature, 1.5mm	750 °C	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	825 °C	IEC 60695-2-13
FMVSS Class	B	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/min	ISO 3795 (FMVSS 302)

Electrical properties

Relative permittivity, 100Hz	4.9	IEC 62631-2-1
Relative permittivity, 1000Hz	4.7	IEC 62631-2-1
Relative permittivity, 1MHz	4.4	IEC 62631-2-1
Dissipation factor, 100Hz	563 E-4	IEC 62631-2-1
Dissipation factor, 1000Hz	259 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	210 E-4	IEC 62631-2-1
Comparative tracking index	400	IEC 60112
Electric Strength, Short Time, 23°C, 2mm	29 kV/mm	IEC 60243-1

Physical/Other properties

Density	1520 kg/m ³	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	280 °C
Min. melt temperature	270 °C
Max. melt temperature	290 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	110 °C
Min. mould temperature	95 °C
Max. mould temperature	130 °C
Hold pressure range	≥80 MPa
Hold pressure time	4 s/mm
Back pressure	As low as possible MPa
Ejection temperature	201 °C

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

Characteristics

Processing	Injection Moulding
Special characteristics	Heat stabilised or stable to heat, Ultrasonic Weldable

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THERMOPLASTIC POLYESTER RESIN

Automotive

OEM

Stellantis - Chrysler

STANDARD

MS.50103 / CPN-3055

ADDITIONAL INFORMATION

Black