DuPont™ Rynite® 935SUV BK593

THERMOPLASTIC POLYESTER RESIN

Product Information

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.

General information	Value	Unit	Test Standard
Resin Identification	PET-(MD+GF)35	-	ISO 1043
Part Marking Code	PET-(MD+GF)35	-	ISO 11469
Rheological properties	**Value**	**Unit**	**Test Standard**
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7	%	ISO 294-4, 2577
Mechanical properties	**Value**	**Unit**	**Test Standard**
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, 73°F	24	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 73°F	5	kJ/m²	ISO 179/1eA
Thermal properties	**Value**	**Unit**	**Test Standard**
Melting temperature, 18°F/min	252	°C	ISO 11357-1/-3
Flammability	**Value**	**Unit**	**Test Standard**
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Other properties	**Value**	**Unit**	**Test Standard**
Density	1570	kg/m³	ISO 1183
VDA Properties	**Value**	**Unit**	**Test Standard**
Fogging, G-value (condensate)	0.1	mg	ISO 6452
Injection	**Value**	**Unit**	**Test Standard**
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. mold temperature	100	°C	-
Max. mold temperature	120[2]	°C	-
Hold pressure range	≥80	MPa	-
Hold pressure time	4	s/mm	-
Back pressure	As low as possible		-
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	
Processing	• Injection Molding
Delivery form	• Pellets
Additives	• Release agent

To find out more, visit DuPont Performance Polymers or contact nearest DuPont location.

North America
Tel: +1 302 999-4592
Toll-Free (USA): 800 441-0575

Asia Pacific
Tel: +81 3 5521 8600

Europe/Middle East/Africa
Tel: +41 22 717 51 11

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Special characteristics	• Light stabilized or stable to light	• U.V. stabilized or stable to weather	
Regional Availability	• North America • Europe	• Asia Pacific • South and Central America	• Near East/Africa • Global

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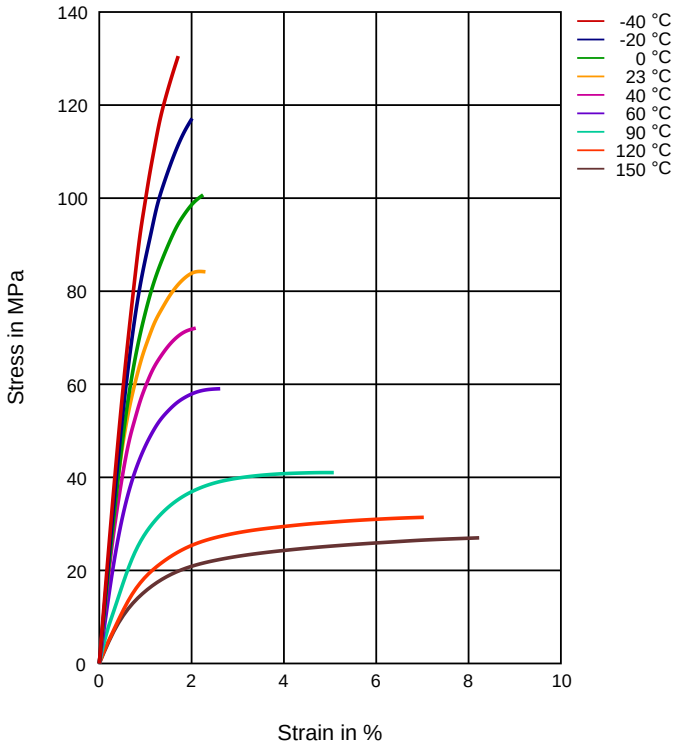
Diagrams

Stress-strain



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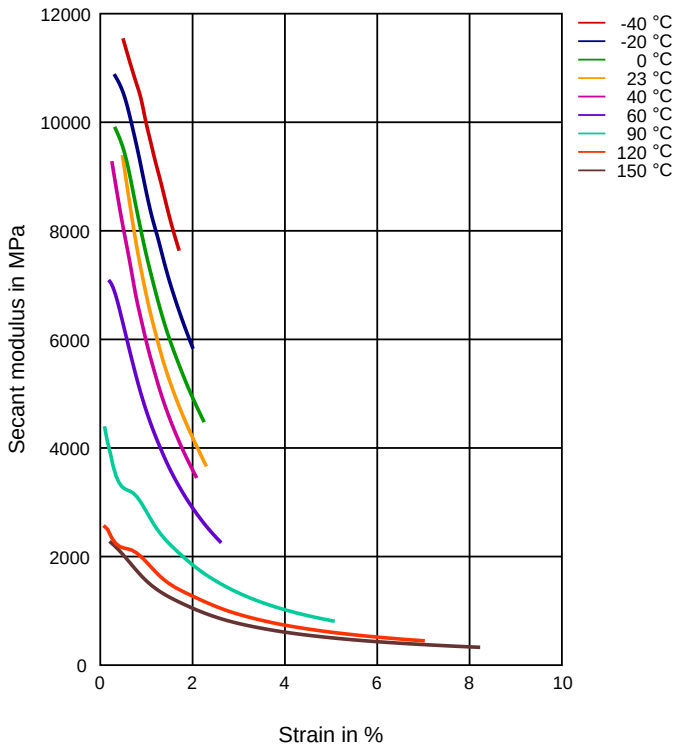
Secant modulus-strain



Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 160 mil (Hytrel® measured at 80 mil), IEC Electrical properties measured at 80 mil, all ASTM properties measured at 120 mil, and test temperatures are 73°F unless otherwise stated.

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