

DuPont™ Rynite® RE5329 BK503

THERMOPLASTIC POLYESTER RESIN

Product Information

Rynite® RE5329 BK503 is a 36% glass reinforced polyethylene terephthalate resin developed for ignition systems

General information			
	Value	Unit	Test Standard
Resin Identification	PET-(GS+GF)36	-	ISO 1043
Part Marking Code	PET-(GS+GF)36	-	ISO 11469
Rheological properties			
	Value	Unit	Test Standard
Melt volume-flow rate	20	cm ³ /10min	ISO 1133
Temperature	280	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage, parallel	0.4	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8	%	ISO 294-4, 2577
Mechanical properties			
	Value	Unit	Test Standard
Tensile Modulus	11000	MPa	ISO 527-1/-2
Stress at break	110	MPa	ISO 527-1/-2
Strain at break	2.2	%	ISO 527-1/-2
Charpy impact strength, 73°F	21	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 73°F	3.4	kJ/m ²	ISO 179/1eA
Thermal properties			
	Value	Unit	Test Standard
RTI, electrical, 30mil	75	°C	UL 746B
RTI, impact, 30mil	75	°C	UL 746B
RTI, strength, 30mil	75	°C	UL 746B
Flammability			
	Value	Unit	Test Standard
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, 120mil	960	°C	IEC 60695-2-1/2
Glow Wire Ignition Temperature, 120mil	725	°C	IEC 60695-2-1/3
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Electrical properties			
	Value	Unit	Test Standard
Relative permittivity			IEC 60250
100Hz	4.3	-	
1MHz	3.8	-	
Dissipation factor			IEC 60250
100Hz	11	E-4	
1MHz	134	E-4	
Volume resistivity	>1E13	Ohm*m	IEC 60093
Surface resistivity	1E14	Ohm	IEC 60093
Electric strength	36	kV/mm	IEC 60243-1
Comparative tracking index	200	-	IEC 60112
Other properties			
	Value	Unit	Test Standard
Density	1630	kg/m ³	ISO 1183
VDA Properties			
	Value	Unit	Test Standard
Fogging, G-value (condensate)	0.2	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	270	°C	-
Max. melt temperature	290	°C	-
Max. screw tangential speed	0.2	m/s	-

To find out more, visit [DuPont Performance Polymers](#) or contact nearest DuPont location.

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Mold Temperature Optimum	140 °C	-
Min. mold temperature	120 °C	-
Max. mold temperature	140 ^[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		
Regional Availability	• North America • Europe	• Asia Pacific • South and Central America	• Near East/Africa • Global

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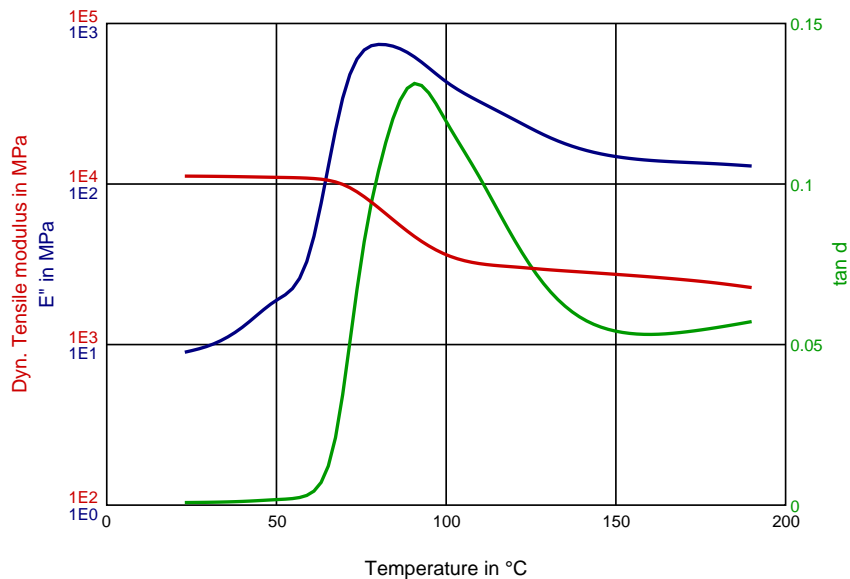


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THERMOPLASTIC POLYESTER RESIN

Diagrams

Dynamic Tensile modulus-temperature



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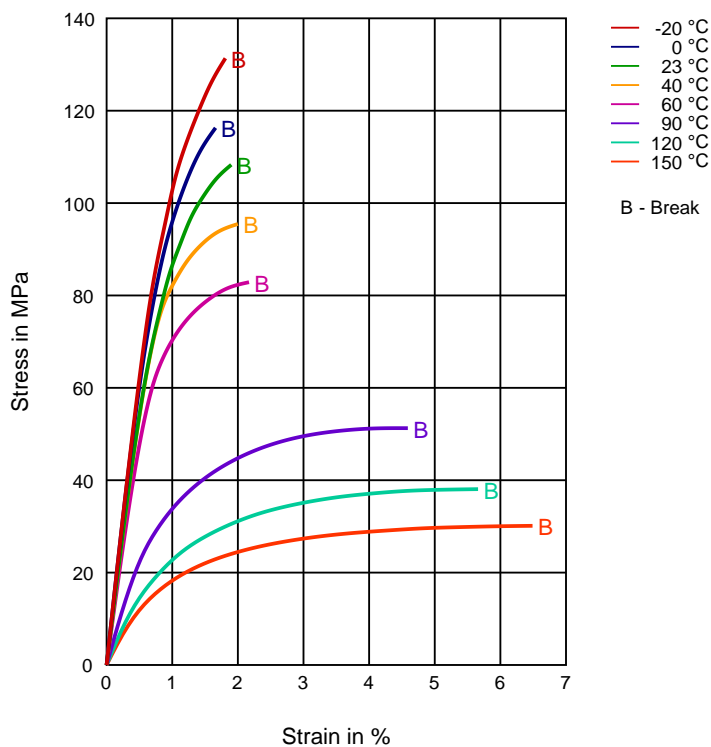
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THERMOPLASTIC POLYESTER RESIN

Stress-strain



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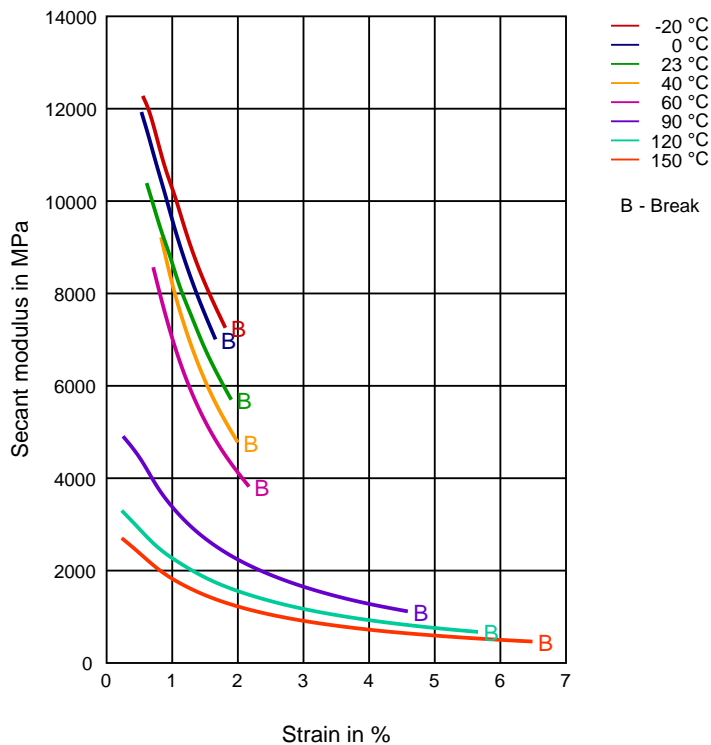
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THERMOPLASTIC POLYESTER RESIN

Secant modulus-strain



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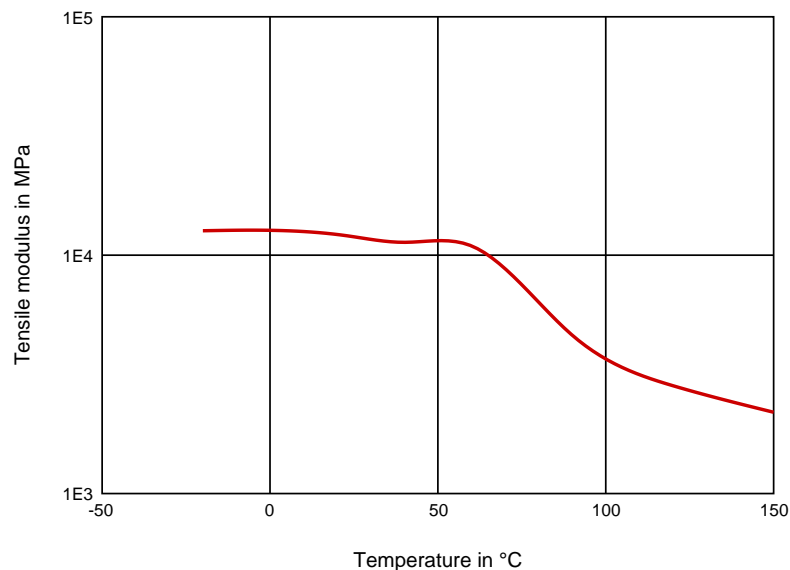
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THERMOPLASTIC POLYESTER RESIN

Tensile modulus-temperature



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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