



Rynite® PET

thermoplastic polyester resin

Rynite® FR543 NC010

Rynite® FR543 is a 43% glass fibre reinforced, flame retardant, modified polyethylene terephthalate for injection moulding. It has a UL94 V-0 rating @ 0.8mm and a UL746B temperature index of 155°C

Property	Test Method	Units	Value
Mechanical			
Stress at Break 5mm/min	ISO 527-1/-2	MPa	172
Strain at Break	ISO 527-1/-2	%	1.8
Tensile Modulus	ISO 527-1/-2	MPa	17000
Flexural Modulus	ISO 178	MPa	
-40°C			15100
23°C			14500
93°C			6900
150°C			3100
Notched Charpy Impact	ISO 179/1eA	kJ/m2	
-30°C			10
23°C			10
Unnotched Charpy Impact	ISO 179/1eU	kJ/m2	
-30°C			30
23°C			43
Thermal			
Deflection Temperature 0.45MPa	ISO 75-1/-2	°C	240
1.80MPa			224
Melting Temperature	ISO 3146C	°C	254
Vicat Softening Temperature 50N	ISO 306	°C	224

Contact DuPont for MSDS, general guides and/or additional information about ventilation, handling, purging, drying, etc.
Mechanical properties measured at 23°C unless otherwise stated.

Rynite® is a DuPont registered trademark.

031002/991215

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Property	Test Method	Units	Value
Electrical			
Surface Resistivity 1mm	IEC 60093	ohm	1E15
Relative Permittivity 1 MHz, 1mm	IEC 60250		4.1
Volume Resistivity 1mm	IEC 60093	ohm cm	1E15
Dissipation Factor 1 MHz, 1mm	IEC 60250	E-4	170
Arc Resistance Plate 4mm	UL 746A	s	124
CTI 1mm	IEC 60112	V	250
Flammability			
Rating @ 1.5mm Nominal	UL94		V-0
Rating @ Thickness	UL94		V-0
Thickness Tested	UL94	mm	0.8
Limited Oxygen Index	ISO 4589	%	35
Temperature Index			
RTI, Electrical 0.75mm	UL 746B	°C	155
3.0mm			155
RTI, Mechanical with Impact 0.75mm	UL 746B	°C	155
3.0mm			155
RTI, Mechanical without Impact 0.75mm	UL 746B	°C	155
3.0mm			155

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Property	Test Method	Units	Value
Other			
Density	ISO 1183	kg/m3	1790
Hardness, Rockwell	ISO 2039/2		
Scale M			102
Scale R			122
Taber Abrasion		mg	
CS-17 Wheel, 1kg, 1000 cycles			69
Humidity Absorption	ISO 62, Similar to	%	
Equilibrium 50%RH			0.11
Water Absorption	ISO 62, Similar to	%	
Saturation, immersed			0.62
Processing			
Melt Temperature Range		°C	270-290
Melt Temperature Optimum		°C	280
Drying Time, Dehumidified Dryer		h	4
Drying Temperature		°C	120
Processing Moisture Content		%	<0.02
Snake Flow		mm	
90MPa, 5x0.30mm			9
90MPa, 5x0.50mm			36
90MPa, 5x0.75mm			73
90MPa, 5x1.00mm			119

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