



Rynite® PET

thermoplastic polyester resin

Rynite® FR530L NC010

Rynite® FR530L NC010 is a flame retardant, 30% glass reinforced modified polyethylene terephthalate. Recognized by UL as UL94V-0 at 0.35mm with a temperature index of 150C (60,000 hrs). Outstanding balance of properties and good flow.

Property	Test Method	Units	Value
Mechanical			
Stress at Break 5mm/min	ISO 527-1/2	MPa	135
Strain at Break 5mm/min	ISO 527-1/2	%	2
Tensile Modulus 1mm/min	ISO 527-1/2	MPa	11500
Tensile Creep Modulus 1000h	ISO 899	MPa	9700
1h			11200
Flexural Modulus	ISO 178	MPa	
-40C			11000
23C			9900
93C			4600
150C			2600
Notched Izod Impact	ISO 180/1A	kJ/m2	
-30C			9,5
23C			8,0
Notched Charpy Impact	ISO 179/1eA	kJ/m2	
-30C			8,5
23C			8,5
Unnotched Charpy Impact	ISO 179/1eU	kJ/m2	
-30C			33
23C			40

Properties measured at 23°C unless otherwise stated.

Please refer to the Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

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Property	Test Method	Units	Value
Thermal			
Deflection Temperature 0,45MPa	ISO 75-1/2	°C	243
1,80MPa			222
CLTE, Flow	ASTM E 831	E-4/C	0,25
CLTE, Transverse	ASTM E 831	E-4/C	1,1
Melting Temperature 10C/min	ISO 3146C	°C	252
Vicat Softening Temperature 50N	ISO 306	°C	218
Electrical			
Surface Resistivity	IEC 93	ohm	1E14
Relative Permittivity 23C, 1E2 Hz	IEC 250		4,8
1E6 Hz			4,7
Volume Resistivity	IEC 93	ohm cm	1E15
Dissipation Factor 1E2 Hz	IEC 250	E-4	70
1E6 Hz			100
Electric Strength	IEC 243-1	kV/mm	33
Arc Resistance Plate 4mm	UL 746A	s	117
CTI	UL 746A	PLC level	2
CTI	IEC 112	V	250
Flammability			
Flammability at 1.6mm Nominal UL94	UL94		V-0
UL94 Rating at Min. Thickness	UL94		V-0
UL94 Min. Thickness Tested	UL94	mm	0,35
Limited Oxygen Index	ISO 4589	%	33
Glow Wire Plate 2mm	IEC 695-2-1	°C	960
Plate 3mm			960
Temperature Index			
RTI, Electrical 3,2mm	UL 746B	°C	150
RTI, Mechanical with Impact 3,2mm	UL 746B	°C	150
RTI, Mechanical without Impact 3,2mm	UL 746B	°C	150

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Property	Test Method	Units	Value
Other			
Density	ISO 1183	kg/m3	1675
Hardness, Rockwell	ISO 2039/2		
Scale M			100
Scale R			120
Coefficient of Friction	ASTM D 1894		
Self			0,18
Steel			0,19
Humidity Absorption	ISO 62, Similar to	%	0,17
Water Absorption	ISO 62, Similar to	%	
Equilibrium 50%RH			0,77
Mould Shrinkage	ISO 2577	%	
Normal			0,9
Normal, Annealed			1,1
Parallel			0,25
Parallel, Annealed			0,25
Processing			
Melt Temperature Range		°C	270-290
Mould Temperature Optimum		°C	110
Drying Time, Dehumidified Dryer		h	4
Drying Temperature		°C	120
Snake Flow		mm	
90MPa, 5x0,30mm			15
90MPa, 5x0,50mm			56
90MPa, 5x0,75mm			107
90MPa, 5x1,00mm			172

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