



Rynite[®] PET

thermoplastic polyester resin

Rynite[®] 408 NC010

Rynite[®] 408 NC010 is a 30% glass reinforced modified polyethylene terephthalate with improved impact resistance. Excellent balance of strength, stiffness, toughness, and temperature resistance.

Property	Test Method	Units	Value
Mechanical			
Tensile Strength	ASTM D 638	MPa (kpsi)	
-40C (-40F)			206 (29.9)
23C (73F)			126 (18.3)
90C (194F)			70.3 (10.2)
150C (300F)			55.2 (8.0)
Elongation at Break	ASTM D 638	%	
-40C (-40F)			3.0
23C (73F)			3.3
90C (194F)			7.0
150C (300F)			7.5
Tensile Modulus	ASTM D 638	MPa (kpsi)	
-40C (-40F)			9790 (1420)
23C (73F)			9310 (1350)
90C (194F)			3280 (475)
150C (300F)			2700 (392)
Poisson's Ratio			0.45
Flexural Modulus	ASTM D 790	MPa (kpsi)	
-40C (-40F)			8900 (1290)
23C (73F)			8280 (1200)
90C (194F)			3010 (436)
150C (300F)			2250 (326)
Flexural Strength	ASTM D 790	MPa (kpsi)	
-40C (-40F)			266 (38.6)
23C (73F)			193 (28.0)
90C (194F)			86.2 (12.5)
150C (300F)			60.0 (8.7)

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

Mechanical properties measured at 23°C (73°F) unless otherwise stated.

Shrinkage generated per ISO 294-4 based on 60 X 60mm end-gated plaques or ASTM D 955 based on 76 X 127mm (3 X 5in) end-gated plaques.

Rynite[®] is a DuPont registered trademark.

991001/991020

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. Caution: Do not use this product in medical applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-51459 or H-50102.

Product Information

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Property	Test Method	Units	Value
Mechanical			
Compressive Strength	ASTM D 695	MPa (kpsi)	148 (21.5)
Flexural Fatigue	ASTM D 671	MPa (kpsi)	
Cycles 10E6			34.5 (5.0)
Izod Impact	ASTM D 256	J/m (ft lb/in)	
-40C (-40F)			101 (1.9)
23C (73F)			133 (2.5)
Unnotched Impact	ASTM D 4812	J/m (ft lb/in)	
-40C (-40F)			960 (18.0)
23C (73F)			960 (18.0)
Thermal			
Heat Deflection Temperature	ASTM D 648	°C (°F)	
0.45MPa (66psi)			240 (465)
1.8MPa (264psi)			220 (428)
CLTE, Parallel	ASTM E 831	E-4/C (E-4/F)	
-40 - 23C (-40 - 73F)			0.24 (0.13)
23 - 55C (73 - 130F)			0.14 (0.08)
55 - 160C (130 - 320F)			0.08 (0.04)
CLTE, Normal	ASTM E 831	E-4/C (E-4/F)	
-40 - 23C (-40 - 73F)			0.85 (0.47)
23 - 55C (73 - 130F)			0.85 (0.47)
55 - 160C (130 - 320F)			0.92 (0.51)
Melting Point	ASTM D 3418	°C (°F)	254 (489)
Electrical			
Surface Resistivity	ASTM D 257	ohm	1 E14
Volume Resistivity	ASTM D 257	ohm cm	1 E15
Dielectric Strength, Short Time	ASTM D 149	kV/mm (V/mil)	
23C (73F), 500 V/s, in oil, 1.6mm (0.062in)			26.5 (675)
23C (73F), 500 V/s, in oil, 3.2mm (0.126in)			21.5 (550)
95C (200F), 500 V/s, in oil, 1.6mm (0.062in)			24.0 (610)
95C (200F), 500 V/s, in oil, 3.2mm (0.126in)			17.5 (445)
150C (300F), 500 V/s, in oil, 1.6mm (0.062in)			14.5 (375)
150C (300F), 500 V/s, in oil, 3.2mm (0.126in)			12.0 (300)
Dielectric Constant	ASTM D 150		
1E3 Hz			3.4
1E6 Hz			3.3
Dissipation Factor	ASTM D 150		
1E3 Hz			0.010
1E6 Hz			0.015
CTI	UL 746A	V	250-400

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Property	Test Method	Units	Value
Flammability			
Rating @ Thickness	UL94		HB
Thickness Tested	UL94	mm	0.75
High Amperage Arc Ignition Resistance	UL 746A	arcs	60-120
High Voltage Arc Tracking Rate		mm/min	0-10
Hot Wire Ignition	UL 746A	s	>120
Temperature Index			
RTI, Electrical 0.75mm	UL 746B	°C	140
RTI, Mechanical with Impact 0.75mm	UL 746B	°C	140
RTI, Mechanical without Impact 0.75mm	UL 746B	°C	140
Other			
Specific Gravity	ASTM D 792		1.51
Hardness, Rockwell Scale M	ASTM D 785		70
Scale R			115
Taber Abrasion CS-17 Wheel, 1kg, 1000 cycles		mg	
Water Absorption 50%RH,23C,24h	ASTM D 570	%	0.06
Mold Shrinkage		%	
Flow, 1.57mm (0.062in)			0.21
Flow, 3.2mm (0.126in)			0.20
Transverse, 1.57mm (0.062in)			0.63
Transverse, 3.2mm (0.126in)			0.75
Processing			
Melt Temperature Range		°C (°F)	270-290 (520-555)
Mold Temperature Range		°C (°F)	>95 (>205)
Drying Time, Dehumidified Dryer		h	4
Drying Temperature		°C (°F)	120 (250)
Processing Moisture Content		%	<0.02

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