



Rynite® PET

thermoplastic polyester resin

PRELIMINARY DATA

Rynite® RE5220 BK533

Rynite® RE5220 BK533 is a 30% glass reinforced product with excellent high temperature dielectric properties.

Property	Test Method	Units	Value
Mechanical			
Tensile Strength	ASTM D 638	MPa (kpsi)	
-40C (-40F)			193 (28)
23C (73F)			169 (24.6)
93C (200F)			107 (15.6)
150C (300F)			68 (9.9)
Elongation at Break	ASTM D 638	%	
-40C (-40F)			2.1
23C (73F)			2.3
93C (200F)			3.6
150C (300F)			6.5
Tensile Modulus	ASTM D 638	MPa (kpsi)	
-40C (-40F)			11200 (1630)
23C (73F)			10700 (1560)
93C (200F)			7590 (1100)
150C (300F)			4380 (635)
Shear Strength	ASTM D 732	MPa (kpsi)	74.5 (10.8)
Flexural Modulus	ASTM D 790	MPa (kpsi)	
-40C (-40F)			9660 (1400)
23C (73F)			8960 (1300)
93C (200F)			3990 (579)
150C (300F)			2800 (406)

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.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

Rynite® is a DuPont registered trademark.

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Product Information

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Property	Test Method	Units	Value
Mechanical			
Flexural Strength	ASTM D 790	MPa (kpsi)	
-40C (-40F)			276 (40)
23C (73F)			240 (35)
93C (200F)			98.6 (14.3)
150C (300F)			82.3 (12)
Compressive Strength	ASTM D 695	MPa (kpsi)	241 (35)
Deformation Under Load	ASTM D 621	%	
27.6MPa (4000psi)			0.3
Izod Impact	ASTM D 256	J/m (ft lb/in)	
-40C (-40F)			85 (1.6)
23C (73F)			90 (1.7)
Unnotched Impact	ASTM D 4812	J/m (ft lb/in)	
-40C (-40F)			640 (12)
23C (73F)			695 (13)
Thermal			
Heat Deflection Temperature	ASTM D 648	°C (°F)	
0.45MPa (66psi)			251 (484)
1.8MPa (264psi)			233 (451)
CLTE, Parallel	ASTM E 228	E-4/C (E-4/F)	
-40 - 23C (-40 - 73F)			0.21 (0.12)
23 - 55C (73 - 130F)			0.19 (0.11)
55 - 160C (130 - 320F)			0.12 (0.07)
CLTE, Normal	ASTM E 228	E-4/C (E-4/F)	
-40 - 23C (-40 - 73F)			0.56 (0.31)
23 - 55C (73 - 130F)			0.60 (0.33)
55 - 160C (130 - 320F)			0.90 (0.50)
Thermal Conductivity	ASTM C 177	W/m K (Btu in/h ft2 F)	
23C (73F)			0.32 (2.2)
50C (122F)			0.3 (2)
100C (212F)			0.31 (2.1)
Electrical			
Surface Resistivity	ASTM D 257	ohm	1 E13
Volume Resistivity	ASTM D 257	ohm cm	1 E15

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Property	Test Method	Units	Value
Electrical			
Dielectric Strength, Short Time 23C (73F), 1.57mm (0.062in) 23C (73F), 3.2mm (0.126in) 95C (200F), 1.57mm (0.062in) 95C (200F), 3.2mm (0.126in) 150C (300F), 1.57mm (0.062in) 150C (300F), 3.2mm (0.126in) 200C (390F), 1.57mm (0.062in) 200C (390F), 3.2mm (0.126in)	ASTM D 149	kV/mm (V/mil)	25 (635) 21.5 (550) 23 (585) 19 (485) 23.5 (600) 19 (485) 21.5 (550) 15 (380)
Dielectric Constant 1E3 Hz 1E6 Hz	ASTM D 150		4.2 4.1
Dissipation Factor 1E3 Hz 1E6 Hz	ASTM D 150		0.004 0.014
Flammability			
Rating @ Thickness Thickness Tested	UL94 UL94	mm	HB 0.75
Other			
Specific Gravity	ASTM D 792		1.58
Hardness, Rockwell Scale M Scale R	ASTM D 785		100 120
Water Absorption 50% RH,23C,24h	ASTM D 570	%	0.06
Mold Shrinkage Flow, 1.57mm (0.062in) Flow, 3.2mm (0.126in) Transverse, 1.57mm (0.062in) Transverse, 3.2mm (0.126in)	ASTM D 955	%	0.13 0.15 0.6 0.7
Processing			
Melt Temperature Range Mold Temperature Range Drying Time, Dehumidified Dryer Drying Temperature Processing Moisture Content		°C (°F) °C (°F) h °C (°F) %	280-300 (535-570) >130 (>265) 4 120 (250) <0.02

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