

# DuPont™ Rynite® PET

thermoplastic polyester resin

## Rynite® FR945 BK507

Rynite® FR945 BK507 is a 45% mineral/glass reinforced, flame retardant, low warp, high stiffness, modified polyethylene terephthalate resin for injection molding. Recognized by UL as UL94V-0 at 0.81mm and with a 150°C RTI.

Property	Test Method	Units	Value
<b>Identification</b>			
Resin Identification	ISO 1043		PET-(MD+GF)45FR(17)
Part Marking Code	ISO 11469		>PET-(MD+GF)45FR(17)<
<b>Mechanical</b>			
Stress at Break	ISO 527	MPa (kpsi)	92 (13.3)
Strain at Break	ISO 527	%	1.2
Tensile Modulus	ISO 527	MPa (kpsi)	12800 (1860)
Flexural Modulus	ISO 178	MPa (kpsi)	12500 (1810)
Flexural Strength	ISO 178	MPa (kpsi)	140 (20.3)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	
-40°C (-40°F)			3
23°C (73°F)			4
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	20 (30)
<b>Thermal</b>			
Deflection Temperature	ISO 75f	°C (°F)	
0.45MPa			240 (464)
1.80MPa			200 (392)
Melting Temperature	ISO 11357-1/-3	°C (°F)	
10°C/min			250 (482)

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

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C 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.

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Property	Test Method	Units	Value
<b>Flammability</b>			
Flammability Classification 0.81mm	IEC 60695-11-10		V-0
Flammability Classification 0.81mm	UL94		V-0
5V Rating	IEC 60695-11-20		5VA
5V Rating	UL94		5VA
5V Min. Thickness Tested	IEC 60695-11-20	mm	1.5
5V Min. Thickness Tested	UL94	mm	1.5
Glow Wire Flammability Index	IEC 60695-2-12	°C	
0.81mm			960
1.5mm			960
3.0mm			960
Glow Wire Ignition Temperature	IEC 60695-2-13	°C	
0.81mm			825
1.5mm			825
3.0mm			925
<b>Temperature Index</b>			
RTI, Electrical	UL 746B	°C	
0.81mm			150
RTI, Impact	UL 746B	°C	
0.81mm			150
RTI, Strength	UL 746B	°C	
0.81mm			150
<b>Other</b>			
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1850 (1.85)
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			0.9
Parallel, 2.0mm			0.5

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## Rynite® FR945 BK507

Property	Test Method	Units	Value
<b>Processing</b>			
Melt Temperature Range		°C (°F)	270-290 (520-555)
Melt Temperature Optimum		°C (°F)	280 (535)
Mold Temperature Range		°C (°F)	>95 (>205)
Mold Temperature Optimum		°C (°F)	110 (230)
Injection Speed		s	Fast
Drying Time, Dehumidified Dryer		h	4
Drying Temperature		°C (°F)	120 (250)
Processing Moisture Content		%	<0.02

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