



Technical Data 96-570

Bedford Materials Co., Inc.
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5J51

Polyester Varnished Polyester-Glass For 155°C Applications

Application of 5J51

Bedford Materials 5J51 varnished Polyester-glass fabric and tape are composed of Polyester warp and glass-fiber filling threads, treated with a flexible fully cured polyester coating. These materials are recommended for both hand and machine wrapping and for irregular shapes.

Advantages

Straight weave with bias characteristics.

Exceptionally high dielectric strength.

Retains dielectric strength on heat aging.

Excellent flexibility and conforms well to irregular shapes.

High tensile and edge-tear strength.

Meet requirements for Class F insulation.

Specifications (Typical Values)

Nominal Thickness (Inches).....	0.008	0.010	0.012
Thickness Tolerance (inches).....	+0.001	+0.001	+0.001
	-0.001	-0.001	-0.001
Edge Tear.....	70	70	70
Weight, Approximate (lbs./sq. yd.).....	0.45	0.56	0.68
Tensile (lbs./in. of width).....	38	38	38
¹ Dielectric Strength, 1/4 in. Dia. Electrodes, Short Time Method (volts/mil)			
as Received.....	1,500		
Elongation -6%.....	1,400		
Elongation - 12%.....	1,100		
Dielectric Retention after Heat Aging (%)			
After 2328 Hours (97 days) at 135°C.....	92.2		
After 47 Hours (2 days) at 250°C.....	85.2		

¹ - ASTM-D-295.

Ordering Information

Tape supplied in standard length rolls of 36 and 72 yards on 1 inch ID cores. Supplied in 25 and 50 yard rolls, 36 inches wide, on 2 inch ID cores. Specify quantity, thickness, width and length required. Pressure sensitive backing available for cloth and tape, see TD 96-540.



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5JF67

Epoxy Varnished Glass Cloth Class F For 155°C Applications

Application for 5JF67

Bedford Materials 5JF67 epoxy-varnished glass cloth offers extreme thermal stability and high dielectric characteristics in a broad range of temperature classifications (A through F). The 5JF67 material retains its flexibility and high dielectric characteristics even after heat aging at 155°C. It is especially recommended for applications in which chemical resistance and good dielectric strength are required, such as in the cases of the separation of phase insulation coils and in interlayer insulation.

Advantages

Excellent resistance to oils and chemicals.

Good handling characteristics facilitate operations.

Good dielectric properties even under high humidity conditions.

Compatible with virtually all varnishes and encapsulating compounds.

Specifications (Typical Values)

Color.....	←-----Tan-----→				
Thickness (inches).....	0.003	0.005	0.007	0.010	0.012
Base Fabric Thickness (inches).....	0.002	0.002	0.003	0.007	0.007
Weight, Approximate (lbs./sq. yd.).....	0.23	0.42	0.51	0.73	0.80
Tensile Strength					
MD.....	60	60	100	300	300
CMD.....	50	50	50	240	240
Dielectric Strength, ¼ in. Dia. Electrodes (volts/mil)					
in Air.....	1,700	1,700	1,700	---	1,375
in Oil.....	---	---	---	1,800	1,800
Power Factor, 60 cycle at 25°C.....	3.35	3.35	3.35	2.32	2.32
Oil Resistance, in Transformer Oil, 15 Min. at 110°C	←-----Unaffected-----→				
Thermal Aging (volts/mil).....	1,400	1,400	1,400	---	---
Dielectric strength measured on sample after aging 168 hours at 180°C and bending around 1/8 inch diameter madrel.					

Ordering Information

Supplied in 36, 50 and 100 yard rolls, 36 inch wide on 2 inch ID Cores. Also furnished in standard tape widths in 36 yard rolls and in widths and roll diameters specified by customer. Specify quantity, width and length required.

Bedford Materials has no control over the final application of the product by others, therefore, the information contained herein is intended as a general guide to product use and should not be construed as a warranty.