



Technical Data 96-580

Bedford Materials Co., Inc.  
 7676 Allegheny Rd  
 Manns Choice, PA 15550  
 Phone: (814) 623-9014  
 Fax: (814) 623-9199  
 E-Mail: [bedmat@bedford.net](mailto:bedmat@bedford.net)

## NEMA – 5JF04 Tan

### Varnished Glass Cloth Extremely Flexible Class 180C

#### Life Rating – 50,000 hrs. at 180°C

#### Application for 5JF04

Bedford Materials 5JF04 Class consists of NEMA straight weave continuous filament glass fabric coated to specified thickness with a flexible insulating varnish. Meets requirements of MIL-I-17205, grade O.

#### Advantages

**Excellent for taping, layer, wrapper and phase insulation** in electrical equipment wherever flexibility, and high dielectric strength are required.

**Used on original equipment and repair** for armature and stator coils, transformers and other applications where a flexible and high temperature electrical barrier is needed.

#### Specifications (Typical Values)

| Color.....                                      | ←-----Tan-----→           |       |       |       |
|---|---------------------------|-------|-------|-------|
| Finished Thickness (inches).....                | 0.007                     | 0.010 | 0.012 | 0.015 |
| Thickness, Glass Fabric Base (inches).....      | 0.003                     | 0.007 | 0.007 | 0.007 |
| Weight, Approximate (lbs./sq. yd.).....         | 0.41                      | 0.69  | 0.84  | 1.02  |
| Tensile Strength, Warp (lbs./in. of width) WARP | 100                       | 300   | 300   | 300   |
| FILL  | 70                        | 200   | 200   | 200   |
| Gurley Stiffness (MG)                           | MD                        | 180   | 500   | 500   |
| CMD   | 120                       | 400   | 400   | 400   |
| Dielectric Strength (V/M) C-96/23/0.....        | 1,600                     | 1,300 | 1,250 | 1,200 |
| (V/M) C-96/23/96.....                           | 900                       | 500   | 500   | 500   |
| (V/M)(Bent) C-168/23/50.....                    | 1,500                     | 1,000 | 1,000 | 1,000 |
| (V/M)(Bent) E-168/130.....                      | 1,800                     | 700   | 700   | 700   |
| (V/M)(Bent) E-168/180.....                      | 1,000                     | 400   | N/A   | N/A   |
| Power Factor (60 cycle) C-96/23/0.....          | 0.05                      | 0.05  | 0.05  | 0.05  |
| C-96/23/96.....                                 | 0.20                      | 0.20  | 0.20  | 0.20  |
| Dielectric Constant (60 cycle) C-96/23/0.....   | 5.0                       | 5.0   | 5.0   | 5.0   |
| C-96/23/96.....                                 | 8.0                       | 8.0   | 8.0   | 8.0   |
| Toluol Resistance (immersion).....              | No Effect After 3 Minutes |       |       |       |

#### Ordering Information

Supplied in 36 yard long rolls approximately 36 inches wide on 1 ½ inch ID cores and in master rolls approximately 350-400 yards long. Also supplied in tape slit to width as specified. Other thicknesses available on negotiation.



Technical Data 96-580

Bedford Materials Co., Inc.  
 7676 Allegheny Rd  
 Manns Choice, PA 15550  
 Phone: (814) 623-9014  
 Fax: (814) 623-9199  
 E-Mail: [bedmat@bedford.net](mailto:bedmat@bedford.net)

# NEMA – 5JF44 Tan

## Varnished Glass Cloth Extremely Flexible Class 180C

### Life Rating – 50,000 hrs. at 180°C

#### Application for 5JF44

Bedford Materials 5JF44 Class is a straight weave .004 inch thick (L.C.) continuous filament glass fabric coated to specified thickness with a flexible insulating varnish. Meets requirements of MIL-117205, grade O.

#### Advantages

**Excellent for miscellaneous electrical insulation application** where flexibility and good thermal aging properties are desired.

**An economical flexible insulation** for taping layer, wrapper, and phase applications.

#### Specifications (Typical Values)

| Color.....                                      | ←-----Tan-----→           |       |       |       |
|---|---------------------------|-------|-------|-------|
| Finished Thickness (inches).....                | 0.007                     | 0.010 | 0.012 | 0.015 |
| Thickness, Glass Fabric Base (inches).....      | 0.004                     | 0.004 | 0.004 | 0.004 |
| Weight, Approximate (lbs./sq. yd.).....         | 0.44                      | 0.65  | 0.76  | 0.86  |
| Tensile Strength, Warp (lbs./in. of width) WARP | 150                       | 150   | 150   | 150   |
| FILL  | 120                       | 120   | 120   | 120   |
| Gurley Stiffness (MG)                           | MD                        | 170   | 220   | 400   |
| CMD   | 85                        | 150   | 375   | 350   |
| Dielectric Strength (V/M) C-96/23/0.....        | 1,400                     | 1,300 | 1,300 | 1,300 |
| (V/M) C-96/23/96.....                           | 800                       | 800   | 800   | 800   |
| (V/M)(Bent) C-168/23/50.....                    | 1,300                     | 1,200 | 1,200 | 1,200 |
| (V/M)(Bent) E-168/130.....                      | 1,600                     | 1,500 | 1,500 | 1,500 |
| (V/M)(Bent) E-168/180.....                      | 900                       | 800   | N/A   | N/A   |
| Power Factor (60 cycle) C-96/23/0.....          | 0.05                      | 0.05  | 0.05  | 0.05  |
| C-96/23/96.....                                 | 0.20                      | 0.20  | 0.20  | 0.20  |
| Dielectric Constant (60 Hertz) C-96/23/0.....   | 5.0                       | 5.0   | 5.0   | 5.0   |
| C-96/23/96.....                                 | 8.0                       | 8.0   | 8.0   | 8.0   |
| Toluol Resistance (immersion).....              | No Effect After 3 Minutes |       |       |       |

#### Ordering Information

Supplied in 36 yard long rolls approximately 36 inches wide on 1 ½ inch ID cores and in master rolls approximately 350-400 yards long. Also supplied in tape slit to width as specified. Other thicknesses available on negotiation.

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 constructed as a warranty.