

## 6641 DMD F CLASS

### 6641 insulation paper for transformer and motors

#### 1 .Description:

6641 Class F DMD Flexible Laminate is a three-layer flexible composite material, produced by using F-class adhesive to adhere the two faces of high-melt-point polyester film with non-woven polyester fabric Non-woven Fabric/ Polyester Film/Non-woven Fabric (3 layers)

#### 2. Specifications:

- Thickness: 0.15mm-0.45mm
- Insulation class F (155°C)
- Laminate made of esterimide-saturated non-woven polyester and high-grade polyester film
- Smooth surface ensures excellent machinability
- Very good bonding with impregnating and trickle resins

#### 3.Application:

It can be used as slots, gaskets and phase insulation for low voltage motors,electrical tools and electrical equipment.

| Properties                          | Unit | Values  |        |        |      |      |      |        |      |      |
|-------------------------------------|------|---|--------|--------|------|------|------|--------|------|------|
| Product Name                        |      | 6641 F Class DMD Insulation Paper             |        |        |      |      |      |        |      |      |
| Nominal Thickness                   | mm   | 0.15  | 0.18   | 0.20   | 0.23 | 0.25 | 0.30 | 0.35   | 0.40 | 0.45 |
| Thickness Tolerance                 | mm   | ±0.02   | ±0.025 | ±0.030 |      |      |      | ±0.035 |      |      |
| Breakdown Voltage (No Bending) ≥    | KV   | ≥ 6   | ≥ 7    | ≥ 9    | ≥ 10 | ≥ 12 | ≥ 15 | ≥ 18   | ≥ 20 | ≥ 22 |
| Bond Strength At Room Temp.         | —    | No delamination                               |        |        |      |      |      |        |      |      |
| Bond Strength At (155±2) °C, 10 min | —    | No delamination, No blister, No adhesive flow |        |        |      |      |      |        |      |      |
| Long-term Heat Resistance (TI)      | °C   | ≥ 155   |        |        |      |      |      |        |      |      |

| No | Technical Specification            |    | Unit          | Values                                       |        |            |            |            |            |            |        |        |      |
|----|------------------------------------|----|---------------|--|--------|------------|------------|------------|------------|------------|--------|--------|------|
| 1  | Thickness                          |    | mm            | 0.15   | 0.18   | 0.20       | 0.23       | 0.25       | 0.30       | 0.35       | 0.40   | 0.45   |      |
| 2  | Thickness tolerance                |    | mm            | ±0.02  | ±0.025 | ±0.03      | ±0.03      | ±0.03      | ±0.03      | ±0.035     | ±0.040 | ±0.045 |      |
| 3  | Nominal Grammage and Tolerance     |    | g/            | 140±2<br>0                                   | 190±28 | 220±<br>33 | 260±3<br>9 | 300±4<br>5 | 350±5<br>2 | 425±6<br>3 | 500±75 | 560±84 |      |
| 4  | Thickness of polyester film        |    | mm            | 0.05   | 0.075  | 0.10       | 0.125      | 0.15       | 0.19       | 0.25       | 0.30   | 0.35   |      |
| 5  | Tensile Strength                   | MD | No Bending    | N/10   | ≥80    | ≥120       | ≥140       | ≥180       | ≥190       | ≥270       | ≥320   | ≥340   | ≥370 |
|    |                                    |    | After Bending |  | ≥80    | ≥105       | ≥120       | ≥150       | ≥170       | ≥200       | ≥300   | ≥320   | ≥350 |
|    |                                    | TD | No Bending    |  | ≥80    | ≥105       | ≥120       | ≥150       | ≥170       | ≥200       | ≥300   | ≥320   | ≥350 |
|    |                                    |    | After Bending |  | ≥70    | ≥90        | ≥100       | ≥120       | ≥130       | ≥150       | ≥200   | ≥220   | ≥250 |
| 6  | Elongation                         | MD | No Bending    | Mm/w<br>idth                                 | ≥15    |            |            |            |            |            |        |        |      |
|    |                                    |    | After Bending |  | ≥10    | ≥5         | ≥3         |            |            |            |        |        |      |
|    |                                    | TD | No Bending    |  | ≥20    |            |            |            |            |            |        |        |      |
|    |                                    |    | After Bending |  | ≥10    | ≥5         | ≥2         |            |            |            |        |        |      |
| 7  | Breakdown voltage                  |    | KV            | ≥6   | ≥7     | ≥9         | ≥10        | ≥12        | ≥15        | ≥18        | ≥20    | ≥22    |      |
| 8  | Bond strength at 25 degree C       |    |               | No delamination                              |        |            |            |            |            |            |        |        |      |
| 9  | Bond strength at(180±2) °C, 10 min |    |               | No delamination ,no blister,no adhesive flow |        |            |            |            |            |            |        |        |      |
| 10 | Long-term Heat Resistance (TI)     |    | °C            | 155  |        |            |            |            |            |            |        |        |      |