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## PE164 Product Data Sheet

### Material Details

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grade:           | PE164. (Type: Composite / Specialist / Other Grades)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Description:     | Epoxy Polyester fabric. Switchgear applications, 160 deg C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Comments:        | Technolaque PE164 composites are manufactured from woven polyester cloth, treated with a high performance epoxy resin system. PE164 exhibits unique properties characteristic of the substrate and resin systems. The product contains no glass, and is relatively easy to machine. The exceptionally high electrical and mechanical properties combined with good abrasion resistance and excellent resistance to SF6, high impact resistance and tensile strength makes this product ideally suited to the manufacture of switchgear components. Technolaque PE164 incorporates a superior resin system to PE100, which increases the TG (DSC) to in excess of 160 deg C |
| Body Colour:     | Cream                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Cover Colour:    | Cream                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Standard Finish: | Glossy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Size:            | 1220 x 1220 Thickness Range: 1.0 - 150.0 †                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

### Typical Applications

- Wear Resistant Components
- Switchgear Manufacture
- Switchgear Link Bars
- Rotor Coil Packings
- Mechanical Applications
- High Voltage Insulation
- High Temperature Components
- Chemical Resistance Components

### General Properties

| Property | Unit of measure | Typical Value |
|----------|-----------------|---------------|
| Density  | g/cm3           | 1.3-1.4       |

‡ Where relevant, the flammability test method is used solely to control and monitor consistency of production. Under no conditions should the results be considered in relation to fire hazards under actual conditions of use.

### Electrical Properties

| Property                  | Unit of measure | Typical Value |
|---------------------------|-----------------|---------------|
| IR (24hrs Water Immersed) | G □             | 60000         |

| Property                       | Unit of measure | Typical Value |
|--------------------------------|-----------------|---------------|
| IR (Dry)                       | G □             | 60000         |
| Electric Strength (Flat Rapid) | MV/m            | 20            |
| Breakdown Voltage (Edge Rapid) | kV              | 90            |
| Tracking Index                 | V               | 600           |

Mechanical Properties

| Property                         | Unit of measure | Typical Value |
|----------------------------------|-----------------|---------------|
| Flexural Strength                | MPa             | 200           |
| Compressive Strength (Flat 20°C) | MPa             | 470           |
| Tensile Strength                 | MPa             | 115           |

Thermal Properties

| Property    | Unit of measure | Typical Value |
|-------------|-----------------|---------------|
| Tg (by DSC) | °C              | >160          |

Notes

- Datasheet Issue No. 1

Disclaimer: The above values are based upon routine test data and do not form the basis of a supply contract. These products may be used in a diverse range of applications and whilst every effort is made to ensure the information in this data sheet is accurate, it must be stressed that it is the user's responsibility to ensure suitability for the intended end use.

Source: <https://www.attwater.com/products/pe164/>