B12 Product Data Sheet

Material Details

Grade: B12. (Type: Fabric Based Laminates - SRBF)
Description: Phenolic Cotton. Medium Weave SRBF
Comments: Medium weave cotton phenolic laminate for general-purpose usage. Suitable for gears, bearings and low-tension electrical applications. Lightweight and easy to machine. This grade is also designed to meet the requirements of PFCC203.
Specifications: BSEN60893-3-4-PFCC201 & 203 (Which supersedes BS2572 F3 & F2). The closest NEMA equivalent to this specification is NEMA C.
Body Colour: Sandy Brown
Cover Colour: Sandy Brown
Standard Finish: Satin/Glossy
Size: 1220 x 1220 Thickness Range: 0.8 - 150.0

Typical Applications

- Welding Jigs
- Wear Resistant Components
- Thrust Washers
- Slideways
- Scraper Blades
- Rotor Blades (compressor)
- Rolling Mill Bearings
- Punched Components
- Pulleys and Sheaves
- Piston Rings
- Pipeline Insulation
- Low Voltage Insulation
- Jigs and Fixtures
- Insulating Handles
- Insulating Bushes Spacers Sleeves
- Heavy Duty Rollers
- Guide Plates and Star Wheels
- Gears - Medium Tooth
- Gears - Coarse Tooth
- Cryogenic Resistance Components
- Conveyor Wheels
- Cams and Camfollowers
- Bolts and Screws
- Ball Race Cages
- Pipeline Insulation
- Low Voltage Insulation
- Jigs and Fixtures
- Insulating Handles
- Insulating Bushes Spacers Sleeves
- Heavy Duty Rollers
- Guide Plates and Star Wheels
- Gears - Medium Tooth
- Gears - Coarse Tooth
- Cryogenic Resistance Components
- Conveyor Wheels
- Cams and Camfollowers
- Bolts and Screws
- Ball Race Cages

General Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit of measure</th>
<th>Typical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>g/cm³</td>
<td>1.35</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>mg</td>
<td>100</td>
</tr>
</tbody>
</table>

¥ 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit of measure</th>
<th>Typical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR (24hrs Water Immersed)</td>
<td>G Ω</td>
<td>0.3</td>
</tr>
<tr>
<td>IR (Dry)</td>
<td>G Ω</td>
<td>0.3</td>
</tr>
<tr>
<td>Electric Strength (Flat Rapid)</td>
<td>MV/m</td>
<td>2.5</td>
</tr>
<tr>
<td>Breakdown Voltage (Edge Step by Step)</td>
<td>kV</td>
<td>14.5</td>
</tr>
<tr>
<td>Tracking Index</td>
<td>V</td>
<td>110</td>
</tr>
</tbody>
</table>

## Mechanical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit of measure</th>
<th>Typical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength</td>
<td>MPa</td>
<td>120</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>MPa</td>
<td>80</td>
</tr>
<tr>
<td>Impact (Notched CHARPY)</td>
<td>kJ/m²</td>
<td>15</td>
</tr>
</tbody>
</table>

## Thermal Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit of measure</th>
<th>Typical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Rating Continuous</td>
<td>°C</td>
<td>115</td>
</tr>
<tr>
<td>Thermal Rating Intermittent</td>
<td>°C</td>
<td>125</td>
</tr>
</tbody>
</table>

## 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/b12/](https://www.attwater.com/products/b12/)