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B3 Product Data Sheet

Material Details

Grade:	B3. (Type: Paper Based Laminates - SRBP)
Description:	Phenolic Paper. Electrical grade. Designed for immersion in oil.
Comments:	Designed for oil immersed and medium voltage applications. Better oil absorption than grade B1. Good electrical and mechanical properties. Water absorption intermediate between Grades B1 and B4.
Specifications:	BSEN60893-3-4-PFPC203 (Which supersedes BS2572 P2). The closest NEMA equivalent to this specification is NEMA XX.
Body Colour:	Brown
Cover Colour:	Sepia Brown
Standard Finish:	Satin/Glossy
Size:	1220 x 1220 Thickness Range: 0.8 - 75.0 †

Typical Applications

- Terminal Boards and Tag Strips
- Precision Machined Parts
- Pipeline Insulation
- Mechanical Applications
- High Voltage (Oil submerged)
- Coil Formers
- Busbar Supports

General Properties

Property	Unit of measure	Typical Value
Density	g/cm ³	1.35
Water Absorption	mg	75
Flammability Category [¥]	-	FH1

[¥] 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 □	1.5
IR (Dry)	G □	1.5
Electric Strength (Flat Rapid)	MV/m	5.1
Breakdown Voltage (Edge Step by Step)	kV	21
Relative Permittivity @ 1 MHz	-	5.2
Dissipation Factor @ 1 MHz	-	0.04
Tracking Index	V	110

Mechanical Properties

Property	Unit of measure	Typical Value
Flexural Strength	MPa	170
Tensile Strength	MPa	105
Impact (Notched CHARPY)	kJ/m ²	4

Thermal Properties

Property	Unit of measure	Typical Value
Thermal Rating Continuous	°C	105
Thermal Rating Intermittent	°C	120

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/b3/>