

TECHNICAL DATA

ELEPHANTIDE® GRADE 4 - Multi-ply Electrical Presspaper

DESCRIPTION

Elephantide® Grade 4 consists of blue cotton (rag) material. Grade 4 has proved to be one of the most successful electrical presspapers available and has been continually produced for over 60 years.

Grade 4 exhibits a unique combination of electrical strength, mechanical toughness and flexibility and has proven durability, even under the most arduous conditions.

MANUFACTURING PROCESS

The furnish is made up of 100% new cotton threads, which are mechanically and hydraulically processed before forming on a multi-cylinder machine.

Continuous improvements have been made by taking advantage of better raw material sources and modern developments in processing techniques.

APPLICATIONS

Grade 4 is most frequently used as transformer insulation in its pure form, but when laminated to polyester film, Grade 4 is also used as motor slot and overhang insulation in Class E (130°C) rotating machines, as well as a wide variety of other electrical, domestic and industrial appliances.

These laminates are particularly suited for punching, creasing and forming.

For Elephantide® Grade 4 and polyester film laminates, please refer to our technical data sheet entitled 'HYPLY E'.

PROPERTIES

Physical Properties	Unit	Values
Apparent density	g/cm ³	1.05 - 1.20
Tensile strength - MD	N/mm ²	75 - 90
Tensile strength - CMD	N/mm ²	32 - 43
Conductivity	mS/m	2.5 - 5.0
pH of aqueous extract	pH	7.5 - 8.0
Ash content	%	0.20 - 0.35
Standards		BS EN 60641 Part 4.1A
Standard width	mm	845, or slit tapes 10mm wide+
Colour		Blue

Electrical Strength	Unit	In Air		In Oil
0.127mm ± 10%	kV/mm	14		74 - 78
0.18mm ± 10%	kV/mm	14.5		70 - 88
0.25mm ± 10%	kV/mm	13.5		68 - 77
0.30mm ± 10%	kV/mm	12		60 - 74
0.40mm ± 10%	kV/mm	10.5		52 - 63
0.50mm ± 10%	kV/mm	10.5		50 - 53
0.80mm* ± 10%	kV/mm	/		/
1.00mm* ± 10%	kV/mm	/		/

*Combined laminate

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