

GRADE 3 DIAMOND PATTERN PRESSPAPER

LIGHT CALENDERED, MEDIUM DENSITY, MEDIUM ELONGATION

BASE PAPER ACC. IEC 60641-3-2, TYPE P.4.3

A diamond dot pattern printed version of our special kraft and cotton blended medium density presspaper. Diamond pattern epoxy dots provide superior short circuit strength, and special fiber blend provides superior flexibility and faster drying for layer insulation in distribution transformer coils.



FEATURES & BENEFITS

Mixture sulphate wood pulp and cotton

Made from a mixture of sulphate (kraft), wood pulp and cotton. Cotton fibers have a longer fiber length and smaller diameter that increases the flexibility of the papers. The combination with kraft fibers provides an ideal mix of both flexibility and high mechanical strength, giving these papers excellent winding and folding (cuffing) performance.

Epoxy Resin Diamond Dot printed

These papers are offered with a B-stage epoxy resin diamond dot coating. Once cured during the normal factory dry-out process, the epoxy resin dots bond to the conductors and adjacent paper layers providing superior short circuit strength. The diamond dot pattern also provides excellent channels for water vapor escape during drying, and fluid ingress during the dielectric fluid filling and impregnation processes.

Flexible (easy winding), and foldable (easy cuffing)

This is a flexible paper that conforms easily to the uneven surfaces often found in Distribution Transformer coils. This conformability provides superior winding performance favored by coil winders over conventional papers. It also has excellent folding properties, making it ideal for cuffed or folded applications.

Faster drying

This paper has been specially designed to easily release water vapor during transformer processing. Proper dry-out minimizes the harmful effect of water on the insulation which degrades dielectric performance and reduces the in-service life of a transformer. When the dry-out process is accelerated with a faster drying paper, processing times and costs can be reduced. In cases where processing is a production bottleneck, increased throughput can increase productivity and competitiveness.

Excellent electrical properties

All Weidmann papers are made to provide excellent electrical properties. Using only the finest raw materials, together with specially designed fiber treatment production processes, Weidmann ensures the highest degree of purity and dielectric performance.

Multi-ply paper machine

This designation indicates the paper has been manufactured on one of Weidmann's multi-ply paper machines, either a multi-ply Fourdrinier or a multi-ply cylinder machine. Multi-ply constructions provide a pinhole-free paper with enhanced mechanical and dielectric properties. All Weidmann paper machines employ widely recognized technology that has been optimized by Weidmann engineers specifically to produce electrical grade papers. State of the art process control systems ensure papers are produced to meet the needs of our customers. Specially designed fiber treatment processes guarantee highest degree of purity and strength.

SUGGESTED APPLICATIONS IN DISTRIBUTION TRANSFORMERS

LV Layer Insulation	✓
LV and HV End Fill Strips	✓
HV Full width layer insulation	✓
HV Two or three fold layer insulation	✓
HV Wide paper strip insulation	✓
HV Narrow strip insulation (HV strip winding machines)	

TECHNICAL DATA - METRIC

Thickness	Master size	Standard widths	Standard roll diameters		Norm
			Internal	External	
0.127 mm	1565 mm	1118 mm	76 mm *	280, 370 mm *	Base paper acc. IEC 60641-3-2, type P.4.3
0.180 mm		1565 mm *			
0.250 mm					
0.380 mm					
0.500 mm					
Property		Unit			Value
Apparent density		g/cm³			1.0
* Other sizes available by request					

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TECHNICAL DATA - IMPERIAL

Thickness	Master size	Standard widths	Standard roll diameters		Norm
			Internal	External	
0.004 inch	62 inch	44 inch	3 inch *	11, 15 inch *	Base paper acc. IEC 60641-3-2, type P.4.3
0.007 inch		62 inch *			
0.009 inch					
0.014 inch					
0.019 inch					
Property		Unit			Value
Apparent density		g/cm³			1.0
* Other sizes available by request					

* Other sizes available by request

Cylinder paper machine

Due to the particular design of the forming section, papers produced on the Cylinder paper machine are characterized by superior Machine Direction (MD) tensile and Cross-Machine Direction (CD) tear properties. These properties provide enhanced performance for wire wrapping, while still providing the required flexibility for coil winding applications. State of the art process control systems and fiber treatment processes ensure the highest levels of quality, purity and dielectric performance. Multi-ply cylinder machine design provides superior protection of pinhole-free paper.

Shelf life - epoxy coated products

When stored in a controlled environment, the "B stage" epoxy coated paper will have an extended shelf life. For paper stored in normal warehouse conditions, out of direct sunlight and away from direct moisture the paper can be kept for up to 12 months.