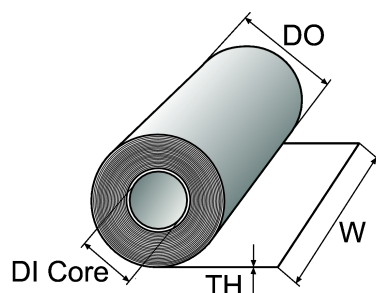


## Diamond Pattern Paper (DPP)

E3DP000.RP



### Product description

Diamond Dotted Presspaper improves the mechanical strength of oil-immersed transformer windings without reducing partial discharge levels. WEIDMANN manufactures this paper by applying discrete dots of B-stage resin on both sides in a diamond pattern. The size of the dots are carefully chosen to avoid interfering with vacuum drying and oil impregnation.

### Product information

During B-stage, the resin dots are dry and tack free, permitting storage and handling similar to normal presspaper. When the winding is heated for drying purposes, the adhesive dots melt and cure, thus creating permanent bonding sites unaffected by further heating cycles that may occur in service. The bonding strength is adequate to support effective gluing in unsupported coil design.

Diamond Dotted Paper can be coated on one or both sides, the customer must specify when they order.

For additional properties, please see additional information in table below.

Minimal order quantity: 1 rol

Alternative ordering unit: kg

### Product parameter

|     | Description      | Unit        | Range of value             | Constraint   | Tolerances |     | Comment                                 |
|-----|------------------|-------------|----------------------------|--|------------|-----|---|
|     |                  |             |                            |  | Min        | Max |   |
| TH  | thickness        | mm          |                            | Please refer to the table below for additional information.    |            |     |   |
| GRM | grammage         | lbs/3000ft² |                            | Please refer to the table below for additional information.    |            |     |   |
| DO  | diameter outside | mm          | $457.2 \leq DO \leq 914.4$ | Smaller DO's are available upon request but cost may increase. |            |     | Standard DO for slit rolls is 304.799mm |
| W   | width            | mm          | $63.5 \leq W \leq 1524$    |  |            |     |   |
| L   | length           | mm          |                            | Calculated characteristic                                      |            |     |   |
| DI  | diameter inside  | mm          | $76.199 \leq DI$           | = 76.199mm   |            |     |   |

### Additional information

| Typical Values (based on thickness) |       |       |       |       |       |       |
|-------------------------------------|-------|-------|-------|-------|-------|-------|
| Caliper: inch                       | 0.003 | 0.005 | 0.007 | 0.010 | 0.015 | 0.020 |
| mm                                  | 0.076 | 0.127 | 0.178 | 0.254 | 0.381 | 0.508 |

| Typical Values (based on thickness)   |   |         |         |          |          |          |
|---|---|---------|---------|----------|----------|----------|
| Basis Weight. lbs/3000ft²   | 46  | 80      | 110     | 160      | 230      | 310      |
| Apparent Density  | .9 to 1.1. all thicknesses                              |         |         |          |          |          |
| Moisture Content, %   | 2.3 to 6.5%, all thicknesses                            |         |         |          |          |          |
| pH Water Extract  | 6.0 to 8.0, all thicknesses                             |         |         |          |          |          |
| Ash Content, %  | 1% Maximum  |         |         |          |          |          |
| Nitrogen Content  | 1.3% to 2.6%, Coleman, by weight                        |         |         |          |          |          |
| Tear Strength Machine Direction, grams/inch   | 60  | 120     | 200     | 300      | 500      | 750      |
| Tear Strength Cross Machine Direction, grams/inch   | 78  | 164     | 240     | 400      | 650      | 850      |
| Tensile Strength Machine Direction, lbs/inch  | 45  | 85      | 100     | 160      | 200      | 250      |
| Tensile Strength Cross Machine Direction  | 15  | 20      | 25      | 40       | 80       | 120      |
| Mullen Burst Strength, lbs/inch²  | 45  | 90      | 120     | 175      | 275      | 330      |
| Dielectric Breakdown*, (Volts, Dry Test)  | 900   | 1,300   | 1,700   | 2,100    | 3,000    | 3,300    |
| Dielectric Breakdown* (kilovolts, Oil Test)-(No Typical Values)   | 4.2 min   | 5.5 min | 7.1 min | 10.5 min | 13.6 min | 16.5 min |
| Bond Strength   | Minimum 40 psi shear strength, tested at 100 degrees C. |         |         |          |          |          |
| *Dielectric Values Based on Tests Made According to ASTM D202, Section 143.   |   |         |         |          |          |          |
| All data shown represents nominal or typical Values only and should not be constructed as minimum or maximum values unless specifically stated. |   |         |         |          |          |          |

Please contact us for values outside the specified ranges. The specified tolerances are valid for measurements taken at WEIDMANN or after conveyance and warehousing under conditions appropriate for the material. Customers are advised to add appropriate additional tolerances in case of extreme environmental conditions at the place of warehousing or processing of the material.

## Ordering code

**E3DP000.RP /TH/DO/DI/W**

## Disclaimer

Subject to change without prior notice

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