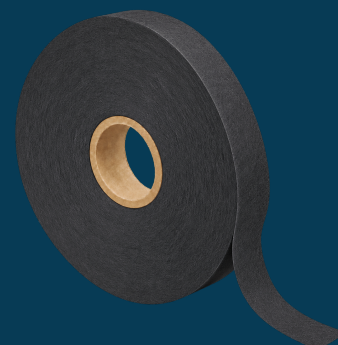


CBDZD / LONGITUDINAL WATER BLOCKING

Single-sided Semi-Conductive Water-Blocking Tape

Laminated polyester nonwoven with swelling powder

Semi-conductive polyester nonwoven fabric with polyacrylate swelling powder.



0.25-0.50 mm
NOMINAL THICKNESS

90-160 g/m²
NOMINAL MASS

8-18 mm
MIN. SWELLING / 3 MIN

Semi-conductive
ELECTRICAL TYPE

DRY WATER BLOCKING FOR CABLE CONSTRUCTIONS

Water blocking with a semi-conductive interface.

Polyacrylate powder absorbs incoming water and swells into a gel, helping close internal water paths after sheath damage. The nonwoven wrap also provides bedding and separation. The semi-conductive carrier is used where the cable design requires a conductive interface.

Typical applications in cable production

Medium- and high-voltage power cables

Used in qualified cable designs where water blocking is needed alongside a semi-conductive interface.

Metallic screen assemblies

Under or over screen wires or tapes where the construction requires conductive contact and water blocking.

Bedding beneath sheaths

A swellable textile interface below metallic or extruded sheaths, subject to design and process validation.

Other power cable interfaces

Between approved cable layers where both the electrical resistance and swelling properties meet the specification.

Material advantages

Swellable barrier

Absorbs incoming water to limit longitudinal movement.

Dry processing

Supports designs without wet flooding compounds.

Bedding and separation

Nonwoven fabric forms an interface between layers.

Conductive interface

Specified surface resistance of $\leq 1500 \Omega$.

Single-sided construction

Useful where a single active face suits the interface.

Grade optimisation

Select thickness and swelling for the actual gap size.

CHOOSING THE CONSTRUCTION

Choose single-sided tape where one active face suits the cable interface. Check orientation and compare grade build and swelling with double-sided laminate; thickness alone does not determine performance. Use semi-conductive grades only where the electrical design requires them.

Material properties do not guarantee finished-cable water-blocking performance. Product images are representative.

Technical data

CBDZD / Single-sided Semi-Conductive Water-Blocking Tape

PROPERTY	UNIT	CBDZD-25	CBDZD-30	CBDZD-35
Thickness	mm	0.25 ±0.03	0.30 ±0.03	0.35 ±0.03
Mass per unit area	g/m ²	90 ±10	100 ±10	110 ±10
Min. tensile strength	N/cm	≥25	≥30	≥35
Min. swelling after 1 min	mm	≥6	≥9	≥10
Min. swelling after 3 min	mm	≥8	≥12	≥14

PROPERTY	UNIT	CBDZD-40	CBDZD-45	CBDZD-50
Thickness	mm	0.40 ±0.03	0.45 ±0.03	0.50 ±0.03
Mass per unit area	g/m ²	130 ±10	140 ±10	160 ±10
Min. tensile strength	N/cm	≥35	≥40	≥50
Min. swelling after 1 min	mm	≥12	≥12	≥12
Min. swelling after 3 min	mm	≥15	≥16	≥18

Common properties and test references

PROPERTY	VALUE	REFERENCE METHOD
Minimum elongation	≥12%	ISO 9073-3
Short-term thermal stability	230 °C	Q/TR.J02.01-2000
Long-term thermal stability	90 °C	IEC 216-1990
Maximum moisture content	≤9%	ISO 287
Surface resistance	≤1500 Ω	GB 3048
Volume resistivity	<1 × 10 ⁶ Ω·cm	GB 3048

Thickness: ISO 9073-2; tensile / elongation: ISO 9073-3; swelling: GB 450.

Supply and construction selection

Specify grade, slit width, core ID, roll diameter and pad or spool format. Other grades can be stocked to agreed demand. Select overlap, tension and swelling allowance to suit the gap and cable design.

Thermal values describe material stability, not a cable rating. Validate the complete cable for pressure, water chemistry and temperature; salt-water duties need specific qualification. Store sealed, clean and dry.