



BENTOTAK DS

DELAYED SWELL SELF-ADHESIVE BENTONITE WATERSTOP STRIP



APPLICATIONS

- Horizontal & vertical concrete construction joints
- Water holding tanks & reservoirs
- Concrete penetrations & Crack repair
- Steel H-Beams

KEY FEATURES

Self-Adhesive – Encased in a water-activated film
 Delayed Swell – Wet weather friendly application
 Swelling waterstop – Stress-free concrete joints
 Suitable for wet/dry & fresh/salt water conditions

Bentotak DS is a uniquely designed hydrophilic swelling moisture barrier for concrete construction joints. It is a composite bentonite waterstop strip consisting of high density bentonite, mineral oil, and modified polymers. The polymers used reduce the swelling capability of the bentonite from 1000% to 200%, greatly increasing the density of the bentonite within the joint while still keeping the pressures within the joint at a minimum. Unlike expanding hydrophilic rubber waterstops, Bentotak DS does not subject the concrete joint to excessive pressures (which can lead to cracks in and around the concrete joint) and only activates around the location of water intrusion. Bentotak DS can be reactivated nearly indefinitely during wet/dry cycling. Bentotak DS is encased in a water-soluble adhesive film that removes the necessity for additional adhesives or nails, and reduces the required working room needed to apply the waterstop. Its unique characteristics give Bentotak DS long lasting construction site durability prior to follow up concrete pours and superior waterproofing results even when subjected to high hydrostatic pressure in fresh and salt water environments.

BENTOTAK DS PHYSICAL PERFORMANCE DATA

RESULTS		TESTING METHOD
Specific Gravity @ 77°F	1.403	ASTM D71
Penetration (0 strokes)	99	ASTM D217
Penetration (60 strokes)	84	ASTM D217
Flash Point (Min.)	>482°F (>250°C)	ASTM D93 Pensky-Martens
Pour Point (Max.)	Solid @ ambient temp. >77°F (>25°C)	ASTM D97
Swelling Rate	130%	One side soaked in water for 24 hours
Hydrostatic Pressure Resistance	318 foot head (137.75 psi – 0.95 MPa)	
Adhesion to Concrete Substrate	9 psi (632.7 gf/cm ²)	Vertical Pull Test (after 24 hour cure)
Adhesion to Iron Plate Substrate	4.2 psi (296.7 gf/cm ²)	Vertical Pull Test (after 24 hour cure)
Installation Temperatures	32°F – 176°F (0°C – 80°C)	
Shelf Life	3+ years (when kept in dry conditions)	

PACKAGING

Bentotak DS is available in 1" x 0.5" x 39" self-adhesive strips (1 meter)
 20 strips per carton (65 feet – 20 meters)
 30 cartons per pallet (1,950 feet – 600 meters)

STORAGE

Store in a dry location and avoid contact with water prior to application

HEALTH & SAFETY

Bentotak DS is non-toxic and does not present any undue hazard, however gloves should be worn as skin may be irritated with prolonged contact to adhesive coating. Wash hands with soap and water after use. See SDS.

INFO@KINGFIELDCP.COM – 612.225.5167 – WWW.KINGFIELDCP.COM

KINGFIELD CONSTRUCTION PRODUCTS – 20 NORTH 4TH STREET, SUITE 300, MINNEAPOLIS, MINNESOTA 55401

The information contained herein is believed by Kingfield Construction Products to be accurate and is offered solely for the customer's consideration, investigation, and verification. Determination of suitability for use is the responsibility of the user. Kingfield's Limited Warranty, & Disclaimer along with Standard Terms & Conditions apply. See www.kingfieldcp.com for more info. Limitations: Standard variations of mechanical properties and hydraulic properties are normal. Kingfield products are resistant to chemicals in normal soil environments, however some reagents may affect the performance of these products. A Kingfield representative should be contacted for further information to determine the suitability of use of these products in unusual soil environments. Unless otherwise stated, Kingfield products should have limited exposure to artificial UV and sunlight. Kingfield products should be protected immediately, and if applicable, backfilled or covered within seven days of installation. Disclaimer: All information, drawings and specifications are based on the latest published information at the time of printing. Kingfield reserves the right to make changes due to manufacturing improvements and engineering at any time. All physical properties are minimum average values (MAV).

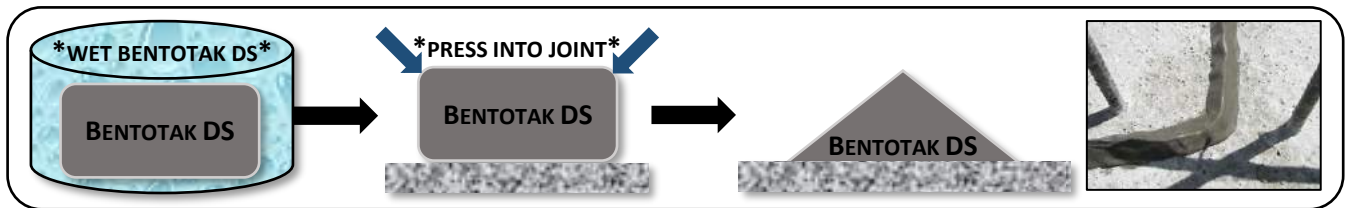
APPLICATION PROCEDURES

Bentotak DS does not require any special adhesive to attach to the substrate. Bentotak DS is covered by a water soluble adhesive film that acts as an integrated adhesive and is activated when in contact with water.

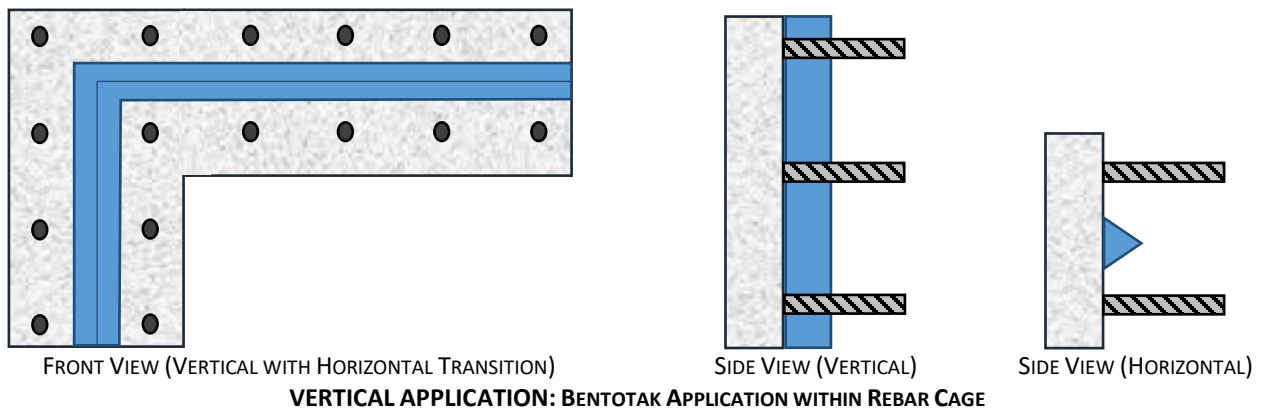
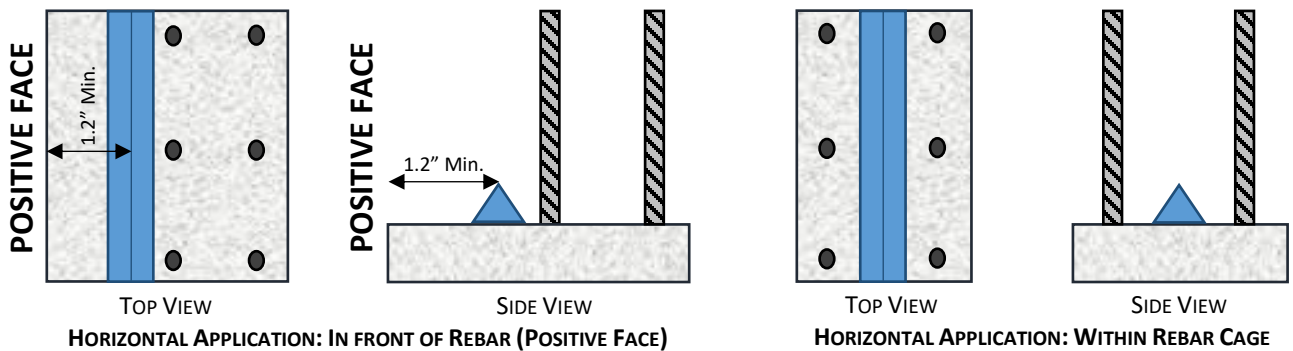
Bentotak DS can be adhered to the substrate via two methods: **Dip It & Stick It** -or- **Wet It & Press It**

- 1) **Dip It & Stick It** – Ensure the concrete surface is clean and free of loose material and debris. Dip the Bentotak DS strip in a bucket of tap water for 1-5 seconds and place directly onto the concrete joint as close to the center as possible (minimum 1.2" [30mm] concrete cover from outside end of joint). Press Bentotak DS into the joint in the form a triangle, ensuring that all waterstop butt ends are molded together to form a continuous waterstop strip. After drying, the Bentotak DS will be fully adhered to the concrete. For vertical applications, follow the procedure outlined above. Concrete nails may be required for long, smooth vertical or overhead surfaces, approximately 2-3 per strip.
- 2) **Wet It & Press It** – Ensure the concrete surface is clean and free of loose material and debris. Wet the concrete with water and place the Bentotak DS as close to the center of the joint as possible (minimum 1.2" [30mm] concrete cover from outside end of joint). Press Bentotak DS into the joint in the form a triangle, ensuring that all waterstop ends are molded together to form a continuous waterstop strip. After drying, the Bentotak DS will be fully adhered to the concrete. For vertical applications, follow the procedure outlined above. Concrete nails may be required for long, smooth vertical or overhead surfaces, approximately 2-3 per strip.

DO NOT REMOVE OUTER PLASTIC FILM ON BENTOTAK DS! IT IS THE SELF-ADHESIVE COATING!



INSTALLATION POSITIONING (ILLUSTRATIVE EXAMPLES – NOT TO SCALE)



INFO@KINGFIELDCP.COM – 612.225.5167 – WWW.KINGFIELDCP.COM

KINGFIELD CONSTRUCTION PRODUCTS – 20 NORTH 4TH STREET, SUITE 300, MINNEAPOLIS, MINNESOTA 55401

The information contained herein is believed by Kingfield Construction Products to be accurate and is offered solely for the customer's consideration, investigation, and verification. Determination of suitability for use is the responsibility of the user. Kingfield's Limited Warranty, & Disclaimer along with Standard Terms & Conditions apply. See www.kingfieldcp.com for more info. Limitations: Standard variations of mechanical properties and hydraulic properties are normal. Kingfield products are resistant to chemicals in normal soil environments, however some reagents may affect the performance of these products. A Kingfield representative should be contacted for further information to determine the suitability of use of these products in unusual soil environments. Unless otherwise stated, Kingfield products should have limited exposure to artificial UV and sunlight. Kingfield products should be protected immediately, and if applicable, backfilled or covered within seven days of installation. Disclaimer: All information, drawings and specifications are based on the latest published information at the time of printing. Kingfield reserves the right to make changes due to manufacturing improvements and engineering at any time. All physical properties are minimum average values (MAV).