

● VOLCLAY®

VOLTEx

BENTONITE GEOTEXTILE WATERPROOFING



CERTIFIED TO
ANSI/NSF 61

VOLTEX



SOLDIER PILE & LAGGING APPLICATION

Voltex® is a highly effective waterproofing membrane ideal for below-grade vertical and horizontal foundation surfaces. Voltex uses the high swelling and self-sealing properties of Volclay sodium bentonite to form a monolithic, low permeable membrane to protect the structure from water. Installation is fast and easy, requiring no primers or special tools. Voltex can be installed in virtually any weather, including freezing temperatures and damp conditions.

Voltex is a unique composite comprised of two high strength geotextiles and a minimum 1.1 lbs. of sodium bentonite per square foot. Fibers of the two geotextiles are interlocked by a patented needle-punching process which encapsulates the bentonite and keeps it uniformly distributed throughout the product. Voltex DS incorporates a HDPE liner bonded to the thick non-woven geotextile. The HDPE liner provides superior chemical resistance, extremely low permeabilities for water vapor and gas transmission.

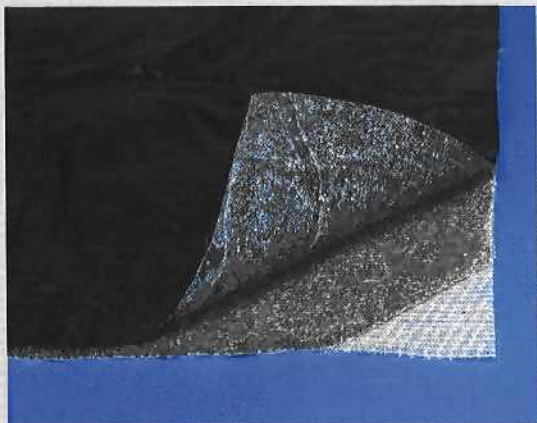
Typical applications include backfilled concrete walls, under structural slabs, tunnels, earth-covered roofs, and property line construction. Property line construction applications include metal sheet piling, soldier pile and lagging, and concrete caisson construction. Voltex can be installed directly over a properly prepared soil substrate without a working mud slab. Additionally, Voltex can be installed to freshly poured concrete as soon as the forms are removed.

The superior performance of Voltex is based on the remarkable properties of the Volclay sodium bentonite and the high strength of the interlocked geotextile fabrics. When hydrated, the polymer enhanced bentonite expands under confinement, forming an impervious membrane that will be maintained for the life of the structure. The geotextiles provide superior protection from inclement weather and construction-related damage, without requiring the use of a protection course.

Additionally, when concrete is poured against Voltex, a tenacious mechanical bond is created with the geotextiles. Independent laboratory testing conducted in accordance with ASTM D-903 (Peel Adhesion to Concrete), yields an average adhesion value of 15 pounds per linear inch. This performance feature is especially important for underslab and property-line construction where the product is installed prior to the structural concrete being placed.

VOLTEX DS

CETCO introduces VOLTEX DS, the latest innovation in our broad line of bentonite waterproofing membranes. VOLTEX DS combines the proven waterproofing capabilities of a bentonite geotextile composite with a high-strength HDPE liner. The fibers of the non-woven fabric are bonded to the HDPE liner using a procedure that locks the composite together. VOLTEX DS is designed for projects that require additional chemical resistance, extremely low water vapor and gas permeability.



A high-strength HDPE liner is bonded to the non-woven geotextile.



Certified to
ANSI/NSF 61

Voltex is certified by NSF International to conform with the requirements of NSF Standard 61 — Drinking Water System Components — Health Effects. Voltex is certified as an external protective barrier material for potable water concrete tanks with a 1,000 gallon capacity or greater.

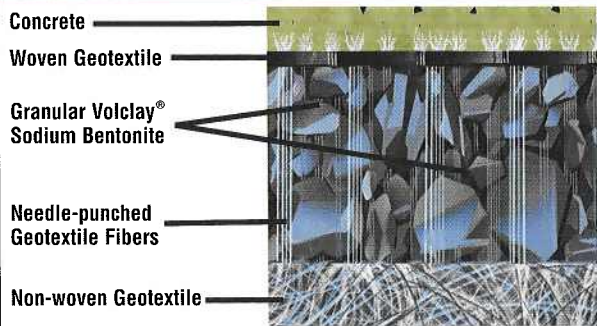
Over 150 million square feet of Voltex has been successfully installed on prestigious projects worldwide. With CETCO's experience and quality, you can be assured of a waterproofing system that yields superior performance.

THE INDUSTRY STANDARD FOR BENTONITE WATERPROOFING

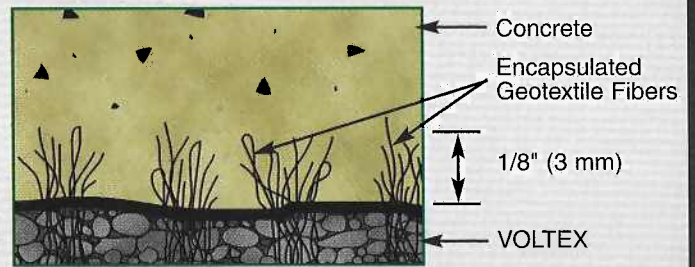


UNDERSLAB APPLICATION

CROSS-SECTION OF VOLTEX

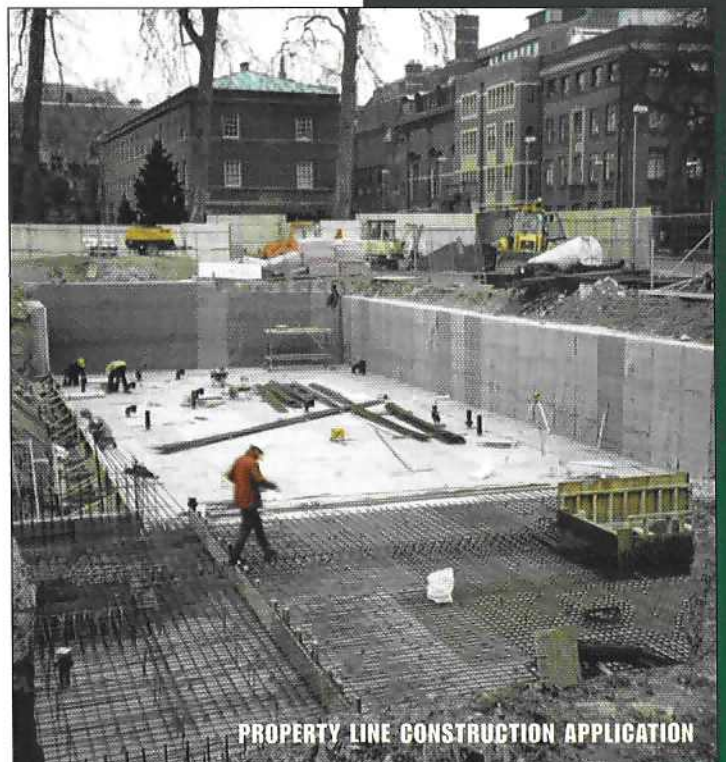


Voltex[®] forms a continuous mechanical bond to concrete. This bond is created when Voltex's strong geotextile fibers are encapsulated by the liquid concrete as shown in the magnified illustration below.



FEATURES & BENEFITS

- **Durability:** withstands inclement weather and resists construction-related damage
- **Superior Adhesion:** mechanical bond tenaciously secures product and prevents water migration
- **Long Service Life:** provides waterproofing protection for the life of the structure
- **Environmentally Safe:** NSF Standard 61 certified for use with potable water
- **Easy to Install:** quick and easy installation without adhesives or special equipment
- **Self-Sealing:** active, swelling properties of sodium bentonite seal small cracks
- **Uniformity:** minimum 1.1 lbs. of sodium bentonite per square foot
- **Integrated System:** complete accessories, including bentonite waterstop



PROPERTY LINE CONSTRUCTION APPLICATION

TYPICAL SPECIFICATIONS

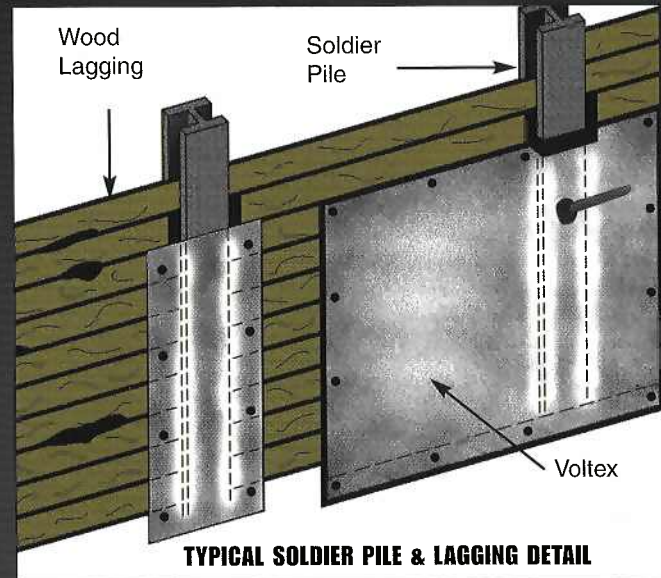
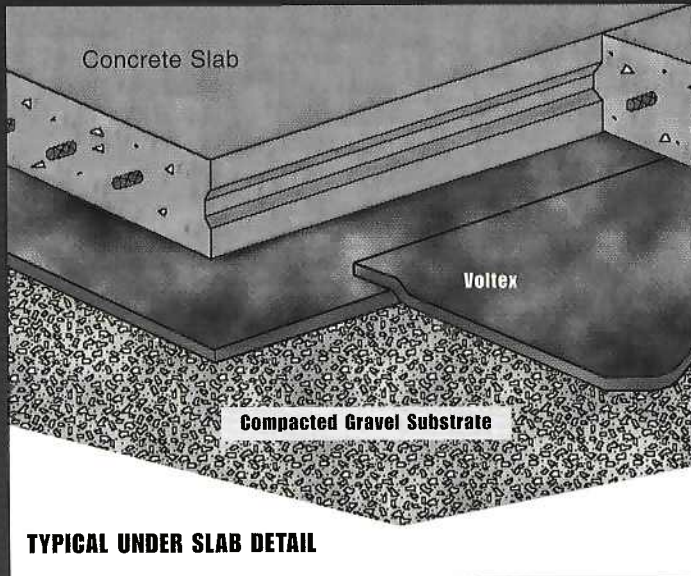
Bentonite Content
Dry Thickness
Roll Width
Roll Length
Roll Weight
Area Per Roll
Integrated Liner

VOLTEx

1.1 lbs./ft² (5.3 kg/m²)
0.25 in. (6.4 mm)
4 ft. (1.2 m)
15 ft. (4.5 m)
70 lbs. (31.7 kg)
60 Sq. Ft. (5.5 m²)
Not Available

VOLTEx DS

1.1 lbs./ft² (5.3 kg/m²)
0.25 in. (6.4 mm)
4 ft. (1.2 m)
14.5 ft. (4.4 m)
68 lbs. (30.8 kg)
58 Sq. Ft. (5.5 m²)
HDPE



For more information on the full line of Volclay Waterproofing Systems
visit our website at www.cetco.com

DECEMBER 2004
(Supersedes All Previous Versions)

The information contained herein is believed to be accurate and reliable. CETCO accepts no responsibility for the results obtained through application of this information. This product information supersedes all previous versions printed prior to December 2004. CETCO reserves the right to update the information without notice.

CETCO

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