

VOLTEX[®] 5.1

BENTONITE GEOTEXTILE BARRIER

DESCRIPTION

VOLTEX 5.1 is a highly effective self-bonding membrane composite consisting of high strength geotextiles and sodium bentonite.

STORAGE

Keep VOLTEX 5.1 and all accessory products dry, with adequate polythene sheeting protection. Block up or palletise materials (as delivered) to prevent contact with ground surface water.

LIMITATIONS

Horizontal installation surfaces shall be free of excessive* standing water, particularly where concrete underblinding is not utilised.*VOLTEX 5.1 can be installed in all inclement weather conditions, providing the quality/accuracy of the installation is not affected e.g. VOLTEX 5.1 floating.

VOLTEX 5.1 is engineered for use under reinforced structural concrete slabs of 150 mm thick or greater.

VOLTEX 5.1 is not designed to waterproof expansion joints. Expansion joints require a properly engineered expansion joint solution.

TECHNICAL DATA		
MATERIAL PROPERTIES	TEST METHOD	NOMINAL VALUE
BENTONITE		
Bentonite Free Swell	ASTM D 5890	≥ 24 ml / 2 g
Bentonite Fluid Loss	ASTM D 5891	18 ml max.
Bentonite mass / unit area	EN 14196	4.0 kg/m ² *
MEMBRANE COMPOSITE		
Index Flux	ASTM D 5887	5.0 x 10 ⁻⁰⁹ m ³ /m ² /s**
Hydraulic Conductivity	ASTM D 5887	3.0 x 10 ⁻¹¹ m/s
Peel Adhesion to Concrete	ASTM D 903 (mod)	2.6 kN / m min
Tensile Strength (MD / CD)	EN ISO 10319	10.0 kN/m / 10.0 kN/m***
Puncture Resistance	EN ISO 12236	1.8 kN****
Low Temperature Flexibility	ASTM D 1970	unaffected @ -32°C

* average value at 12% MC, tolerance ±0.2 kg/m²

** typical value

*** average value, tolerance ±2.0 kN/m

**** average value, tolerance ±0.3 kN



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EN 13491:2004 + EN 13491:2004/A1:2006

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