

TECHNICAL REFERENCE 401-BMCLT

BENTOMAT® CLT CERTIFIED PROPERTIES

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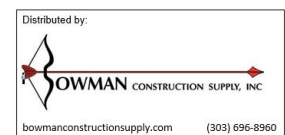
| MATERIAL PROPERTY | TEST METHOD | TEST FREQUENCY | REQUIRED VALUES |
|---|----------------------------|--|---|
| Bentonite Swell Index ¹ | ASTM D 5890 | 1 per 50 tonnes | 24 mL/2g min. |
| Bentonite Fluid Loss ¹ | ASTM D 5891 | 1 per 50 tonnes | 18 mL max. |
| Bentonite Mass/Area ² | ASTM D 5993 | 40,000 ft ² (4,000 m ²) | 0.75 lb/ft ² (3.6 kg/m ²) min. |
| GCL Tensile Strength ³ | ASTM D 6768 | 200,000 ft ² (20,000 m ²) | 45 lbs/in (70 N/cm) MARV |
| GCL Peel Strength ³ | ASTM D 6496 | 40,000 ft ² (4,000 m ²) | 3.5 lbs/in (6.1 N/cm) min. |
| GCL Index Flux ⁴ | ASTM D 5887 | Periodic | 1 X 10 ⁻⁹ m ³ /m ² /sec max. |
| GCL Hydraulic Conductivity ⁴ | ASTM D 5887 | Periodic | 5 X 10 ⁻¹⁰ cm/sec max. |
| GCL Hydrated Internal Shear Strength ⁵ | ASTM D 5321 ASTM D 6243 | Periodic | 500 psf (24 kPa) typical |

Bentomat CLT is a reinforced GCL consisting of a layer of sodium bentonite between two geotextiles, which are needlepunched together and laminated to a 20-mil (0.5mm) textured HDPE geomembrane.

Notes

- Bentonite property tests performed at a bentonite processing facility before shipment to CETCO's GCL production facilities.
- Bentonite mass/area reported at 0 percent moisture content.
- All tensile strength testing is performed in the machine direction using ASTM D 6768. All peel strength testing is performed using ASTM D 6496. Upon request, tensile and peel results can be reported per modified ASTM D 4632 using 4 inch grips.
- ASTM D5887 Index flux and hydraulic conductivity testing with deaired distilled/deionized water at 80 psi (551 kPa) cell pressure, 77 psi (531 kPa) headwater pressure and 75 psi (517 kPa) tailwater pressure. Reported value is equivalent to 92 gal/acre/day. This flux value is equivalent to a permeability of 5x10⁻¹⁰ cm/sec for typical GCL thickness. ASTM D 5887 testing is performed only on a periodic basis because the membrane is essentially impermeable.
- Peak value measured at 200 psf (10 kPa) normal stress for a specimen hydrated for 48 hours. Site-specific materials, GCL products, and test conditions must be used to verify internal and interface strength of the proposed design.

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IMPORTANT: The information contained herein supersedes all previous printed versions, and is believed to be accurate and reliable. For the most up-to-date information, please visit www.CETCO.com. CETCO accepts no responsibility for the results obtained through application of this product. CETCO reserves the right to update information without notice.

CETCO®

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