



PRODUCT CERTIFICATE



BENTECH Bentonite Heavy Duty GCL Tanking Membrane

CERTIFICATE NO: CM20220

Date of issue: 03/06/2020

Review Date: 02/04/2023

1 CERTIFICATE HOLDER DETAILS

Bentech Pacific Ltd

143 Harbour Drive, Matarangi, 3592, New Zealand

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<http://www.bentechbentonite.co.nz>



2 PRODUCT CERTIFICATION BODY



SAI Global Certification Services Pty Limited

(ACN 108 716 669) Trading as "SAI Global"

JAS-ANZ Accreditation No. Z1440295AS

680 George St, Sydney, NSW 2000

www.saiglobal.com

The complaints process for this certificate
can be found here:

www.saiglobal.com

KEY INFORMATION

3 SUMMARY OF DESCRIPTION OF BUILDING METHOD OR PRODUCT

BENTECH Bentonite Heavy Duty GCL Tanking Membrane, is a GCL (Geosynthetic Clay Liner) Tanking Membrane. Comprised of woven and non-woven geotextile, with a thick layer of natural sodium bentonite in the centre.

Continuation of description can be found in item 9. Supporting Information about Description of Building Product or Method.

Matters that should be taken into account in the use or application of the building method or product can be found in item 6. Conditions and Limitations of Use

Catalogue or model identification numbers: GCL-NP5500 (This is the only product covered by this certificate).

4 SUMMARY OF INTENDED USE OF BUILDING METHOD OR PRODUCT

BENTECH Bentonite Heavy Duty GCL Tanking Membrane is an underground tanking membrane and can be used under slabs, against precast panels, blocks or rock walls below ground level.

Continuation of intended use can be found in item 10. Supporting Information about Intended use of Building Product or Method.

5 BUILDING CODE PROVISIONS – New Zealand Building Code (NZBC) as at JAN 2017

B2 – Durability - B2.3.1(a)

E2 – External Moisture – E2.3.3, E2.3.7

F2 – Hazardous Building Materials – F2.3.1

if designed, used, installed & maintained in accordance with the scope of this Certificate, the above-mentioned product will meet the following provisions of the NZBC.

How the building method or product complies or contributes can be found in item 12. Basis for Certification.

Any qualifications on the extent of that compliance can be found in item 6. Conditions and limitations of use.



The certificate holder must maintain compliance with the conditions set out in section 15 of the Building (Product Certification) Regulations 2008.

This certificate is issued by SAI Global, an independent certification body accredited by the product certification accreditation body appointed by the Chief Executive of Ministry Business, Innovation and Employment (MBIE) under the Building Act 2004. MBIE does not in any way warrant, guarantee or represent that the building method or product, the subject of this certificate conforms with the New Zealand Building Code, nor accept any liability arising out of the use of the building method or product. MBIE disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages, and costs arising as a result of the use of the building method(s) or product(s) referred to in this certificate.

This certificate may only be reproduced in its entirety. It is advised to check that this certificate is currently valid and not withdrawn or suspended by referring to the Register of Product Certificates on the Building Performance website <http://www.building.govt.nz>.

Information regarding SAI Global's complaints process can be found at the following link: [Complaints Process](#).

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BENTECH Bentonite Heavy Duty GCL Tanking Membrane

6 CONDITIONS AND LIMITATIONS OF USE

1. The Membrane to be installed in accordance with the Installation Guide 'Bentech Bentonite Heavy Duty GCL Tanking Membrane Product Technical Statement (Pts) & Installation Guide – V 03/20'.
2. The site to be prepared and backfilled in accordance with the Installation Guide 'Bentech Bentonite Heavy Duty GCL Tanking Membrane Product Technical Statement (Pts) & Installation Guide – V 03/20'.

The product's use is to be in accordance with the installation guide and requirements against which the product was assessed.

Reference Documents:

1. Bentech Bentonite Heavy Duty GCL Tanking Membrane Product Technical Statement (Pts) & Installation Guide – V 03/20 – *Contact certificate holder to obtain a copy.*

7 HEALTH AND SAFETY INFORMATION

1. Bentech Pacific Ltd. – Material Safety Data Sheet (Version1 Date: 13/03/2013) – *Contact certificate holder to obtain a copy.*

8 SIGNATURES

Name and Signature of the Product Certification Body's (PCB) authorised representative and, where different, the person assigned by the PCB to make the certification decision



Heather Mahon
Global Head of Technical Services
SAI Global Assurance

BENTECH Bentonite Heavy Duty GCL Tanking Membrane

SCHEDULE: INFORMATION THAT SUPPORTS KEY INFORMATION

9 SUPPORTING INFORMATION ABOUT DESCRIPTION

BENTECH Bentonite Heavy Duty GCL Tanking Membrane is a 6.4mm thick GCL (Geosynthetic Clay Liner) Tanking Membrane with a minimum 5.5kg/m² of sodium bentonite. Comprised of woven and non-woven geotextile, with a thick layer of natural sodium bentonite in the centre. Fibres of the two geotextiles are interlocked by a patented needle-punching process which encapsulates the natural sodium bentonite, keeping it evenly distributed between the two layers of geotextile.

Reference Documents:

1. Bentech Bentonite Specification – Bentech Bentonite Tanking System & Details – Bentech Bentonite V8/20 – *Contact certificate holder to obtain a copy.*

10 SUPPORTING INFORMATION ABOUT INTENDED USE

BENTECH Bentonite Heavy Duty GCL Tanking Membrane is an underground tanking membrane and is suitable for use in the following applications; under slabs, below ground basements, lift-pits, foundations, against precast panels, blocks or rock walls below ground level and confining and tanking situations.

Reference Documents:

1. Bentech Bentonite Heavy Duty GCL Tanking Membrane Product Technical Statement (Pts) & Installation Guide – V 03/20 – *Contact certificate holder to obtain a copy.*

11 SUPPORTING INFORMATION ABOUT CONDITIONS AND LIMITATIONS OF USE

All conditions and limitations are as stated above in item 6. Conditions and Limitations of Use

12 BASIS FOR CERTIFICATION

- **Durability** – by testing and comparison with provisions of Verification Method B2/VM1
- **External Moisture** - by testing and comparison with provisions of Acceptable Solution E2/AS1
- **Hazardous Building Materials** - by testing and comparison with provisions of Verification Method F2/VM1

13 SUPPORTING DOCUMENTATION FOR CERTIFICATION

1. **Building regulations 1992 (SR 1992/150)** – Reprinted as at 1 January 2017.
2. **Acceptable Solutions and Verification Methods** for New Zealand Building Code Clause **B2 Durability**. Amendment 10 (30 November 2018).
3. **Acceptable Solutions and Verification Methods** for New Zealand Building Code Clause **E2 External Moisture**. Amendment 8 (30 November 2018).
4. **Acceptable Solutions and Verification Methods** for New Zealand Building Code Clause **F2 Hazardous Building Materials**. Amendment 3 (1 January 2017).
5. **CTC (China Building Material Test & Certification Group) National Research Centre of Testing Techniques for Building Materials – Test Report No. 20111A02564** (Date of Issue: 30/08/2011). (CNAS accreditation No. L0690) *This report contains the results of testing to ASTM D5890-2002, Standard test method for swell index of clay mineral component of geosynthetic clay liners, for GCL-NP5500*
6. **Bentech Pacific Ltd. – Material Safety Data Sheet (Version1 Date: 13/03/2013)**



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PRODUCT CERTIFICATE



BENTECH Bentonite Heavy Duty GCL Tanking Membrane

14 CONDITIONS RELATING TO NOTIFICATION

- (a) the certificate holder notifies the product certification body in writing of any intended change to any of the following particulars:
- (i) the name, address, or contact details of the certificate holder;
 - (ii) any address of a location where a certified product is produced or manufactured;
- (b) the certificate holder notifies the product certification body in writing of any intended change, modification, or alteration to any of the following:
- (i) the certified building method or product;
 - (ii) the method of its production or manufacture;
 - (iii) the product quality plan prepared in respect of the certified building method or product;
 - (iv) the application or installation instructions for the certified building method or product;
 - (v) any documentation relating to the use and maintenance of the certified building method or product;
- (c) if the certificate holder has any reason to suspect that the certified building method or product does not comply with the Building Code, the certificate holder notifies the product certification body in writing of the reason for that suspicion:
- (d) if the certificate holder or the product certification body finds that a certified building method or product that has been released on the market does not comply with the Building Code, the certificate holder discloses that fact in disclosure statements published in a form that is acceptable to the product certification body and to the chief executive:
- (e) if the certificate is suspended or revoked, the certificate holder—
- (i) notifies all customers to whom the building method or product is regularly supplied; and
 - (ii) immediately ceases using the certificate, the mark of conformity, and any reference to the number of the certificate.



The certificate holder must maintain compliance with the conditions set out in section 15 of the Building (Product Certification) Regulations 2008.

This certificate is issued by SAI Global, an independent certification body accredited by the product certification accreditation body appointed by the Chief Executive of Ministry Business, Innovation and Employment (MBIE) under the Building Act 2004. MBIE does not in any way warrant, guarantee or represent that the building method or product, the subject of this certificate conforms with the New Zealand Building Code, nor accept any liability arising out of the use of the building method or product. MBIE disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages, and costs arising as a result of the use of the building method(s) or product(s) referred to in this certificate.

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