

Certificate no: CM20220

Version: 03

Original issue date: 02 April 2020

Version date: 01 December 2023

## 1. Certificate Holder Details



Bentech Pacific Ltd

PO Box 25-760, St. Heliers Auckland 1740  
New Zealand

Email: [al@bentechbentonite.co.nz](mailto:al@bentechbentonite.co.nz)

Ph: +64 21 565 696

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

## 2. Product Certification Body



SAI Global Certification Services Pty Limited,  
(ACN 108 716 669) Trading as "SAI Global"  
Operating as "Intertek & Intertek SAI Global"  
650 Lorimer Street Port, Melbourne, VIC 3207,  
Australia

[www.saiglobal.com](http://www.saiglobal.com)

**Complaints:** The complaints process for this  
certificate can be found here:

<https://saiaassurance.com.au/complaints-appeals/>

# Product Certificate

**Bentech Pacific Ltd**

**BENTECH Bentonite® Heavy Duty GCL Tanking Membrane**

## 3. 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.

*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*  
*Continuation of description can be found in item 10 – Supporting Information about Description.*

Product brochure/catalogue or models identification numbers:

- GCL-NP5500 and GCL-NP5500/HDPE

## 4. Intended use of Building Method or Product

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

*Continuation of intended use can be found in item 11 – Supporting Information about Intended use.*

## 5. New Zealand Building Code Provisions

**Clause B2 Durability** - B2.3.1(a)

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

**Clause F2 – Hazardous Building Materials** – F2.3.1

*How the building method or product complies or contributes can be found in item 8. Basis for Certification.*

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



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## 6. Conditions and Limitations of Use

1. The work site must be prepared and Bentech Bentonite® NP5500 GCL or NP5500 GCL/HDPE installed and back-filled in accordance with "Bentech Bentonite® NP5500 GCL & Bentech Bentonite® NP5500 GCL/HDPE Heavy Duty Tanking Membranes Product Technical Statement (PTS) & Installation Guide – V 7/23"

NOTE: Together, items 3,4,5 and 6 define scope of use

Reference Documents:

- a) Bentech Bentonite® NP5500 GCL & Bentech Bentonite® NP5500 GCL/HDPE Heavy Duty Tanking Membranes Product Technical Statement (PTS) & Installation Guide – V 7/23 – *Contact certificate holder to obtain a copy.*

## 7. Health and Safety Information

- Bentech Bentonite® NP5500 GCL & Bentech Bentonite® NP5500 GCL/HDPE Heavy Duty Tanking Membranes Material Safety Data Sheet V7/23 – *Contact certificate holder to obtain a copy.*

## 8. Basis for Certification

- **B2 Durability** – by testing and comparison with provisions of Verification Method B2/VM1
- **E2 External moisture** - by testing and comparison with provisions of Acceptable Solution E2/AS1
- **F2 Hazardous building materials** - by testing and comparison with the performance requirements of clause F2.3.1

## 9. Supporting Documentation for Certification

### Acceptable Solutions and Verification Methods for New Zealand Building Code:

- i. **Building regulations 1992 (SR 1992/150)** – Version as at 15 November 2021.
- ii. **Acceptable Solutions and Verification Methods** for New Zealand Building Code Clause B2 Durability. Amendment 12 (28 November 2019).
- iii. **Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3** for New Zealand Building Code Clause E2 External Moisture. Amendment 10 (5 November 2020).
- iv. **Acceptable Solutions and Verification Methods** for New Zealand Building Code Clause F2 Hazardous Building Materials. Amendment 3 (1 January 2017).



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### TEST REPORTS

- A. **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
- B. **TRI-Environmental (Geosynthetic Testing & Services -Suzhou- Co. Ltd.) - Test Report No SDH23156**, (Date of Issue 21 July 2023). (GAI-LAP accreditation No. 79) This report contains the results of testing to ASTM D5890-2019, Standard test method for swell index of clay mineral component of geosynthetic clay liners, for GCL-NP5500
- C. **Bentech Bentonite® NP5500 GCL & Bentech Bentonite® NP5500 GCL/HDPE Heavy Duty Tanking Membranes Material Safety Data Sheet V7/23**

### 10. Supporting Information About Description

#### Any supporting information for section 3.

BENTECH Bentonite® Heavy Duty GCL Tanking Membrane is a 6.4mm thick GCL (Geosynthetic Clay Liner) Tanking Membrane with a minimum 5.5kg/m<sup>2</sup> 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. Bentech Bentonite® NP5500 GCL/HDPE incorporates an additional layer of 0.17 thick HDPE affixed to the white geotextile surface.

#### Reference Documents:

- a) **Bentech Bentonite® Specification – Bentech Bentonite®NP5500 GCL & Bentech Bentonite®NP5500 GCL/HDPE Heavy Duty Tanking Membranes V7/23** – *Contact certificate holder to obtain a copy*

### 11. Supporting Information About Intended Use

#### Any supporting information for section 4.

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 Below ground in confined tanking applications.

#### Reference Documents:

- a) **Bentech Bentonite® Specification – Bentech Bentonite®NP5500 GCL & Bentech Bentonite®NP5500 GCL/HDPE Heavy Duty Tanking Membranes V7/23** – *Contact certificate holder to obtain a copy*



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### 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.



**Calin Moldovean**  
President, Business Assurance  
SAI Global Assurance

All CodeMark certificates that are current must be registered with MBIE. MBIE maintains a register of valid product certificates. [Please find the register here.](#)

If the certificate is not listed on this register or it appears as (SUSPENDED), it is not a valid CodeMark certificate and does not have to be accepted by a building consent authority as establishing compliance with the New Zealand Building Code.