## Waterproofing Systems rawMAT prehydrated bentonite

Product Technical Statement: 101669

Type P bentonite a premier tanking system providing high level waterproofing protection.

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#### Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include technical information by manufacturer and either a BRANZ or independent Appraisal or CodeMark



Waterproofing Systems confirms that this minimum level of assurance has been met or exceeded by the following: British Board of Agreement rawMAT HDB Waterproofing System - 97/3337

### **Technical Statement**

#### **Product Description**

The rawMAT Pre-hydrated Bentonite tanking system is designed for protection of concrete foundations and vertical walls

#### Scope of use

rawMAT bentonite can be installed directly onto compacted sub-bases, concrete substrates or applied to sacrificial shutters and steel piles in high hydrostatic situations. It also self-heals when damaged and can be installed on wet substrates.

**Key Applications:** tunnels, deep excavations, tank farms, filling station forecourts, petroleum bunds, land-fill bases and caps, for environmental protection and containment situations such as lined burial pit for carcusses, man-made lakes over contaminated sites.

#### New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- Clause B2 Durability: Performance B2.3.1(a)
- Clause E2 External moisture: Performance E2.3.3
- Clause F2 Hazardous building materials: Performance F2.3.1

#### Notes

B 2.3.1(a) Durability 50 years

E 2.3.3 Walls, floors, and structural elements in...

F 2.3.1 The quantities of gas, liquid, radiation or...

British Board of Agreement (BBA) Approved (Cert. No. 97/3337, 3rd Issue)

Declaration of performance (DoP), According Annex 111 EU No.305/2011 of the Regulation Dop No. HDBP0117

#### Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

British Board of Agreement (BBA) Approved (Cert. No. 97/3337, 3rd Issue)

Declaration of performance (DoP), According Annex 111 EU No.305/2011 of the Regulation Dop No. HDBP0117

#### **Supporting Evidence**

The product has and can make available the following additional evidence to support the above statements:



British Board of Agreement <u>rawMAT HDB Waterproofing System - 97/3337</u>

Use in Service History

rawMAT bentonite has a 20 year history of installations in New Zealand.

# Product Criteria

Design requirements





#### **Company Contact Details**

### RAWMAT

BENTONITE TANKING	
Brand:	Waterproofing Systems
Company:	Waterproofing Systems NZ Ltd
Physical Address:	Malvern Road Onehunga Auckland
Postal Address:	Malvern Road Onehunga Auckland
Telephone:	64 09 5791460
Fax:	64 09 5791461
Email:	info@waterproofing.co.nz
Website:	http://www.waterproofing.co.nz



# Waterproofing Systems rawMAT prehydrated bentonite

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Unlike dry bentonite systems the rawMAT bentonite membrane system is resistant to chemical degradation (cationic exchange), is easy to install and also has the ability to withstand minor movement in the structure.

- · can be installed on damp and uncured green concrete substrates, and in inclement weather
- requires no priming
- can be nailed to the substrate
- clean cut with no loss of bentonite
- is highly resistant to chemicals and hydrocarbons
- has natural products with an indefinite life
- will self heal through accidental mechanical damage such as a cut
  British Board of Agreement (BBA) Approved (Cert. No. 97/3337, 3rd Issue)
- system incorporates rawSEAL CJ2025 waterstop for construction joints and rawPASTE for lap joints and detailling pipe penetrations

#### Installation requirements

Refer the Waterproofing Systems installation guidelines and specifications.

Only installed by licenced LBP registered Waterproofing Systems NZ Itd applicators.

Quality Control checksheets must be completed for each job and kept as a record of evidence to ensure the installation meets WPSNZ specification.

rawMAT bentonite must be fully and completely confined on all external faces and perimeter edges, compacted to 85% Proctor.

**Unique Advantage:** There is no loose bentonite when cutting or folding the membrane, every lap is a direct bentonite-to-bentonite bond making it a homogeneous membrane system.

rawMAT is a High Density Bentonite, the only prehydrated bentonite available in the world which is 100% waterproof immediately during installation, remains permeable and holds the swell pressure when in contact with salt water, petrol, diesel oil, landfill leachate, Ethylene Glycol and highly resistant to hydrocarbons making an exceptional standalone system.

#### Maintenance requirements

Refer to the Care & Maintenance instructions available on our website and are attached to the Warranty document.

#### Warrantees

Only installed by licenced LBP registered Waterproofing Systems NZ Itd applicators.

When installed to specification and subject to normal environmental conditions and use, The rawMAT bentonite membrane, when subjected to normal conditions of environment and use, properly maintained to have serviceable life of 20 years.

A 20 Year Material Warranty is issued on receipt of Quality Control Checksheet/s and warranty application.

When fully protected, the rawMAT bentonite system provides an effective barrier to the transmission of moisture for the life of the structure in which it is incorporated.

### **Company Product Information**

#### Environmental

Quality Management System - ISO 9001:2015Rawell Environmental Ltd. holds certificate no. FM 511903 and operates a Quality Management System which complies with the requirements of BS EN ISO 9001:2015 for the following scope:"The design manufacture and supply of waterproof materials for landscaping, environmental and construction solutions."

Environmental Management System - ISO 14001:2015Rawell Environmental Ltd. holds certificate no. EMS 511904 and operates an Environmental Management System which complies with the requirements of BS EN ISO 14001:2015 for the following scope:"The design manufacture and supply of waterproof materials for landscaping, environmental and construction solutions."

RAWMAT® HDB CE MarkingRawell are proud to announce that we have achieved CE Marking Accreditation with notified certification body BTTG Testing and Certification Ltd for our prehydrated HDB membranes as a fluid barrier. Intended uses in accordance with the applicable harmonised technical specification include:Construction of tunnels and underground structuresConstruction of liquid waste disposal sites, transfer stations or secondary containmentConstruction of solid waste storage and disposal sitesConstruction of canalsConstruction of reservoirs and dams.

#### **Quality Assurance**



ISO 9001 (Quality Management)

Date last validated: 29 May 2020

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