

4131WB SEALCO BITUBOND® SELF-STICK TANKING

1. GENERAL

This section relates to the application of **Sealco Waterproofing Systems Ltd** bituBOND self adhesive tanking membrane for foundation and vertical wall applications.

It is used:

- with concrete, concrete masonry and polystyrene/concrete masonry substrates
- in low hydrostatic applications such as shallow excavations or away from the water table.

1.1 RELATED WORK

Refer to ~ for ~

Documents

1.2 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

BRANZ BU 397 Waterproofing basements

1.3 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents relating to this part of the work:

bituBOND® Product Manual (3rd Edition August 2007)

Standard detailed drawings

[BRANZ Appraisal 558](#) - bituBOND

Manufacturer/supplier contact details

Company: **Sealco Waterproofing Systems Ltd**

Web: www.sealco.co.nz

Email: admin@sealco.co.nz

Telephone: 03 366 9495 (head office) or 0508 (SEALCO)

Mobile 027 544-5532

Warranties

1.4 WARRANTY - MANUFACTURER/SUPPLIER

Provide a materials warranty in the suppliers standard form.

Warranty period: 15 years materials

From: Date of completion of the application

1.5 WARRANTY - INSTALLER/APPLICATOR

Installer's warranty for the system under normal environmental and use conditions against failure.

Execution warranty: 5 years

Provide this warranty on the installer's standard form.

Requirements

1.6 QUALIFICATIONS

Waterproofing work to be carried out by licensed applicators approved by Sealco Waterproofing Systems Ltd.

1.7 NO SUBSTITUTIONS

Substitutions are not permitted to any specified Sealco Waterproofing Systems Ltd system, or associated components and products.

- 1.8 PROJECT REGISTRATION
Contact Sealco Waterproofing Systems Ltd to confirm that the project has been registered.
Web: www.sealco.co.nz/project-registration.html
Telephone: 03 - 366 9495 or 0508 (SEALCO)
If the project has not been registered, telephone and provide all required details.

Performance

- 1.9 PRE INSTALLATION MEETING
Convene a meeting between the applicator, contractor, all associated consultants and Sealco Waterproofing Systems Ltd to ensure all parties know what is required for effective performance of the system.
- 1.10 SPECIAL DETAILS
Where a standard detail does not exist, or if a standard detail cannot be applied, an approved alternative must be obtained from Sealco Waterproofing Systems Ltd before proceeding with the installation.
- 1.11 PRESSURE RATING
Obtain a written assurance from Sealco Waterproofing Systems Ltd that the waterproofing system, comprising membrane and jointing methods, is capable of sustaining the designated water pressure head. Refer to SELECTIONS for the designated water pressure head.
- 1.12 QUALITY ASSURANCE
Maintain quality necessary to assure that work is performed in accordance with this specification and the qualifying requirements of Sealco Waterproofing Systems Ltd.

Ensure that Sealco Waterproofing Systems Ltd's Quality Control sheets are completed fully and faithfully for each installation area.

2. PRODUCTS

Materials

- 2.1 SELF ADHESIVE TANKING MEMBRANE
bituBOND® SBS modified self adhesive membrane 1.5mm thick with cross laminated polyethylene carrier to the top side and an adhesive layer protected by siliconised release plastic to the underside all marked with the manufacturer's mark.

Accessories

- 2.2 BITUBOND PRIMER
BituBOND primer is a quick drying primer, pails marked with the manufacturer's mark, and used in accordance with Sealco Waterproofing Systems Ltd technical literature.
- 2.3 BITUBOND SEALANT
bituBOND® Sealant, a bituminous sealant available in 310ml cartridge, specially formulated to be compatible with bituBOND® membrane.
- 2.4 BITUBOND TERMINATION BAR
bituBOND® aluminium Termination Bar.
- 2.5 NON RIGID PROTECTION SHEET
3mm plastic coreflute protection boards.
- 2.6 BITUBOND DRAINAGE PROTECTION SHEET
bituBOND® DrainV, comprised of a layer of geo-textile polypropylene fabric and a dimpled high density polyethylene (HDPE) membrane. Available in rolls 6mm thick, 2m wide x 20m long.
Draining material consists of needle-punched polypropylene (DrainV).

3. EXECUTION

Conditions

- 3.1 **GENERALLY**
Comply with the requirements and instructions of Sealco Waterproofing Systems Ltd.
- 3.2 **LAYOUT**
If not detailed on the drawings, confirm the layout to suit site conditions and Sealco Waterproofing Systems Ltd specifications. Pre-plan the work to keep the number of membrane laps to an absolute minimum.
- 3.3 **DE-WATERING**
Maintain water level minimum 300mm below the level of the work area during the progress of the tanking work and until protective loading coats and walls are complete and fully set.
- 3.4 **DRAINAGE**
Install certified drainage system to remove water from foundations. Ensure drain is protected with a geotextile cloth to prevent clogging with fines, and that it is correctly located 150mm from the membrane and 200mm below the foundation/wall construction joint in accordance with Sealco Waterproofing Systems Ltd requirements.
- 3.5 **CHECK SUBSTRATE**
Check that the substrate will allow work of the required standard. Complete any remedial work identified before commencing any work. Substrate to comply with performance requirements of the NZBC.

Preparation

- 3.6 **STORAGE**
Take delivery of rolls undamaged and include for site handling facilities where required. Stack on end, off the ground on a level surface, out of sunlight and above 5°C and with accessories. Do not allow rolls to become flat or to be crushed.
- 3.7 **SUBSTRATE CONDITION**
Ensure that the substrate is in a suitable condition to allow work of the required standard. Ensure all surfaces are smooth, clean, dry and free from dust and dirt with no projections of sharp materials that will cause damage to the membrane or allow water to track behind the membrane. On concrete masonry and polystyrene substrates check that masonry mortar joints are pointed flush with the front face of the substrate.
- 3.8 **SUBSTRATE PREPARATION**
Bolster off any projections. Remove debris and leave the surface dust-free, oil-free and clean, with nothing that could diminish the adhesion of primers. Fill tie holes flush and smooth with mortar. Grind off steps or sharp protrusions caused by formwork joints.
- 3.9 **CORNERS AND UPSTANDS**
Use only masonry fillets.
- External corners to be chamfered and flashed.
- Internal corners are to be coved and flashed
- Upstands are to be coved and flashed.
- 3.10 **CONSTRUCTION JOINTS**
Underflash construction/movement joints to Sealco Waterproofing Systems Ltd installation specifications.
- 3.11 **PRIME CONCRETE**
Prime concrete and concrete masonry substrates thoroughly with bituPRIME or bituBOND® ensuring a good even coverage and penetration as recommended by Sealco Waterproofing Systems Ltd. Ensure substrate is sufficiently cured and dry to permit the intended performance of the primer.

3.12 **PRIME POLYSTYRENE**
Prime polystyrene substrates thoroughly with bituBOND® WB ensuring a good even coverage and penetration as recommended by Sealco Waterproofing Systems Ltd.

3.13 **ALLOW PRIMER TO DRY**
Allow the primer to dry as recommended by Sealco Waterproofing Systems Ltd. Do not prime more than can be covered in one working day. Prevent contamination of the primed surface prior to application of the membrane.

Installation

3.14 **WEATHER CONDITIONS**
Install bituBOND® membranes only in fair weather with air temperature above 5°C. Do not lay membrane in wet or misty conditions. In cooler temperatures use a hot air gun to warm the back of the rolls during installation.

3.15 **LAYING OUT BITUBOND®**
Lay out and allow the bituBOND® membrane to relax for 30 minutes prior to laying.

3.16 **INSTALL BITUBOND®**
Fully adhere bituBOND® membrane to the substrate to Sealco Waterproofing Systems Ltd installation specifications. Install bituBOND® by progressively peeling off the release plastic and firmly placing the membrane onto the substrate. Roll to ensure good adhesion.

3.17 **BITUBOND® LAP JOINTS**
Remove the selvedge release paper from the lap and lap the next roll 100mm over the last sheet. All side lap joints to be 100mm wide and end laps 150mm wide. To ensure full bonding ensure the lap area is kept free of foreign matter. Apply pressure to membrane and particularly lap areas.

3.18 **BITUBOND® FLOOR TO WALL JUNCTION**
Protrude the under slab membrane 150mm beyond the perimeter of the footing and protect this edge from damage. When wall is struck, install a 150mm wide underflashing across the floor -to - wall junction mortar fillet. Install the wall membrane down over the underflashing and dress out on to the perimeter footing membrane. Ensure the 150mm flap is adequately protected from damage during construction of the walls and that foreign matter is not able to contaminate this critical lap area.

Where DPC is the underslab waterproofing, install a 200mm wide underflashing centralised over the floor - to - wall junction, end laps 150mm. Install the wall membrane down over the top of the underflashing to the bottom of the footing. Dress the bottom edge to form a sound seal. Bring the DPC up the wall, over the top of the top of the bituBOND® membrane and tape to the face of the membrane.

3.19 **PENETRATIONS**
Dress penetrations in a tight cove to Sealco Waterproofing Systems Ltd specifications. Ensure penetrations are underflashed and overflashed to specification. Seal off all cut edges with bituBOND® bituminous sealant.

3.20 **TERMINATION**
Terminate bituBOND® membrane perimeter edges with bituBOND® bitumen sealant and bituBOND® Termination Bar centralized over the membrane, cut edge and sealant, then mechanically fix to provide a compression seal.

3.21 **BITUBOND® PROTECTION**
bituBOND® to be fully protected by 3mm Coreflute protection system prior to backfilling against the walls.

3.22 **BACKFILL**
Place the backfill once the vertical membrane is in place and adequately protected. Ensure the drainage system has been installed at the footing and the backfill is placed as

recommended by Sealco Waterproofing Systems Ltd. Ensure the backfill is free of sharp objects that could damage the membrane.

Protection

3.23 PROTECT HORIZONTAL SURFACES

After laying is complete the membrane can be protected until the floor slab is poured by covering the tanking with DPC sheets. This situation arises when there is an extended delay between the membrane installation and the placement of the floor slab or where vehicles and other construction machinery is being taken over the membrane.

3.24 INSTALL PROTECTION SHEETS - COREFLUTE BOARD

Neatly fit Coreflute sheets, spot adhered to the vertical bituBOND tanking overlapped 50mm with joints taped to Sealco Waterproofing Systems Ltd requirements.

3.25 INSTALL PROTECTION SHEETS - DRAIN V

Install bituBOND® Drain V in accordance with manufacturer's instructions.

- Unroll rolls with geo-textile fabric facing the backfill overlapping the edges by at least 200mm. For greater protection join the two edges using waterproof bituBOND® bituminous strips.
- Fix Drain V profile to the edge and nail it down with JNH 40 plugs or steel nails.
- Form a suitable water collection and drainage tube (Draincoil or similar) at the foot of foundation, then fill with free draining stone and 30% grit sand fines around the draincoil and then compactable fill (prior to fixing ensure compatibility with wall waterproofing system).

Completion

3.26 SECTIONAL COMPLETION

As sections of the tanking are completed, arrange for inspection of the work before covering with protective sheets, walls, or slabs. Complete the Sealco Waterproofing Systems Ltd Quality Control Sheets, and provide to them for issuing the Materials Warranty.

3.27 ACCEPTANCE

- Arrange for an inspection of the completed work.
- Complete Sealco Waterproofing Systems Ltd Quality Control sheets and provide to them for the issuing of the Materials Warranty.
- Protect the membrane until completion of the contract works.

3.28 CLEAN UP

Clean up as the work proceeds.

3.29 LEAVE

Leave this work in a sound condition, free of any defect.

3.30 REMOVE

Remove debris, unused materials and elements from the site.

4. SELECTIONS

For further details on selections go to www.sealco.co.nz.

Substitutions are not permitted to the following, unless stated otherwise.

4.1 PRESSURE RATING

Designated water pressure head: ~ metres

Membrane system

4.2 BITUBOND® SELF ADHESIVE DAMP-PROOFING MEMBRANE

Location:

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Manufacturer: Sealco Waterproofing Systems Ltd

Brand: bituBOND®

Accessories - protection

- 4.3 COREFLUTE PROTECTION SHEET
Location: ~
Supplier: Sealco Waterproofing Systems Ltd
Type/brand: Coreflute
Thickness: 3mm
- 4.4 BITUBOND DRAINAGE PROTECTION SHEET
Location: ~
Supplier: Sealco Waterproofing Systems Ltd
Type/brand: Drain V
Thickness: 6mm