

Certificate of Conformity

This is to Certify: **Novater S-C**

Product Description

Novater S-C is a plastomeric modified bitumen torch-on waterproofing membrane (APP).
Novater S-C is available in thicknesses of 3 and 4mm and comes in 10m x 1m rolls.

Complies with the Building Code of New Zealand:

If installed and maintained in accordance with the conditions of this certificate, Novater S-C will comply with;

- B1.3.1
- B1.3.3 (a), (d), (e)
- B2.3.1 (a)
- B2.3.2 (a)
- E2.3.3
- E2.3.7 (a), (b) (c)
- F2.3.1

Subject to the following conditions and limitations:

1. Certification of this product is for the use on concrete or masonry substrates in damp proofing and tanking situations only.
2. Novater S-C must only be stored, installed and maintained as per the Jaydex Application Guide Novater V2. Oct. 2015 by Jaydex licensed applicators.
3. Jaydex International will notifyASUREQuality in accordance with Regulation 15 of the Building (Product Certification) Regulations 2008.

Date of Issue 28th October 2015

Certificate Number AQ-031015-CMNZ

CodeMark Certification Body

ASUREQuality, 11 Hull Road, Mt Maunganui
New Zealand
Tel. 0508 00 11 22
www.asurequality.com


John McKay, Chief Executive Officer, ASUREQuality Limited



CODEMARK™

Product Use and Scope

Novater S-C is used for waterproofing basement retaining walls and floors.

Novater S-C is certified for use on buildings subject to non-specific design under floor slabs complying with NZS 3604:2011 and behind concrete masonry basement walls and under floor slabs complying with NZS 4229:1999 and; on buildings subject to specific design with substrates of insitu or precast concrete complying with NZS 3101:2006 or concrete masonry complying with NZS 4230:2004.

Certificate Holder

Jaydex International Ltd
No. 3C Marken Place
Glenfield, Auckland 0627
Ph.: +64 9 444 1751
Website: www.jaydex.co.nz



www.jas-anz.org/register

"This certificate is issued by an independent certification body accredited by the product certification accreditation body appointed by the Chief Executive of the Ministry of Business, Innovation and Employment (MBIE) under the Building Act 2004. The 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. The 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."

SPECIFICATION

JAYDEX NOVATER SINGLE SHEET MEMBRANE SYSTEM FOR BURIED CONCRETE WALLS / FLOORS

INTRODUCTION

This specification includes the preparation and application of the **Jaydex Novater** 3mm single layer membrane system (ISO9001) rated to in-situ concrete and / or concrete block and / or precast concrete wall areas. This system is composed of a plain membrane torch applied direct to a Concrete / Concrete block / Concrete Tilt Slab external wall area. These vertical applications can then lap to a plain membrane that has already been horizontally applied onto the associated excavated ground areas. The subsequent backfill application to ground level then creates a tanked subterranean structure. In some instances the roof of the subterranean structure is also buried with excavated back fill necessitating a 3mm plain membrane being applied over its concrete roof that will lap down over onto the already installed wall membrane.

Note: The **Jaydex Novater** consists of high strength non-woven polyester mat reinforcement, impregnated and coated with blown bitumen and selected inert fillers, the material is coated with fine sand. The **Jaydex Novater** membrane is also accredited as a barrier against subterranean hydrogen sulphide emissions associated with geothermal regions.

SURFACE PREPARATION

Horizontal Ground Area under Floor Slab

It is preferable that a lean mix (50mm minimum) concrete tidy slab is laid down on to the compacted excavation invert to act as a base for the horizontal application of membrane that will be sandwiched under the subsequent concrete floor slab. This is not a mandatory requirement. All pipe and elbow protrusions through the tidy slab must be put in place prior to membrane applications. The tidy slab will usually finish beyond the outside line of the subsequent external walls. The tidy slab will normally run under each wall line through an excavated depression that will subsequently create the ground beam wall foundation.

Note: Because of its high mechanical strength the **Jaydex Novater** can be laid over compacted hard fill with a sand blinded layer topping in the event that a concrete tidy slab is not provided. This is conditional upon the blinded surface being smooth with any sharp projections well buried in the sand blinding layer.

Vertical Concrete Wall Areas

New Concrete Block surfaces shall be clean and de-nibbed.

New Concrete Insitu surfaces should be finished to NZ3114 1980 U2 or U3 and be only bull or wood floated. It is to be cured for the prescribed period and cleaned of dust or surface contaminants, such as curing compound residues. Any existing concrete surfaces may require moss killing and water blasting to remove any existing mould dirt or paint.

New Concrete Precast Panel surfaces shall be cleaned to remove any loose contaminants. The vertical gaps between the concrete wall panels are to be filled with a proprietary compressible PE foam rod combined with a proprietary joint sealant.

Note: All concrete surfaces shall be free of dags nibs and cavities and all horizontal to vertical transitions shall have a 20mm x 20mm minimum cement plaster coving or timber fillets.

APPLICATION OF MEMBRANE SYSTEM

Primer

One coat of **Jaydex Bitumen Primer** is applied to all applicable concrete surfaces at a spreading rate of approx. 8 sqm / litre by brush or roller and allowed to dry.

Membrane Application to Horizontal Tidy Slab or Sand Blinded Compacted Hard Fill

Torch the **Jaydex Novater** polyester reinforced membrane onto the entire concrete tidy slab or thermo-bond all the lap lines and loose lay the composite sheet over the sand blinded ground level. All protrusions coming through the membrane are to be sealed around with **Jaydex Easygum™** reinforced with C.S.M after the membrane sheet laying process is complete.

Note: Where lift pits are counter sunk into the floor slab, double sheet applications of **Jaydex Novater** are required externally for full encapsulation of floor and walls of Lift Pit. Two coats of **Jaydex Novapoxy WB** are preferably to be applied to all internal walls of the Lift Pit.

Membrane Application to Vertical Wall

All internal and external corners and vertical to horizontal transitions shall have plain membrane, gusset patches and strips applied before the main membrane is applied over the whole wall area.

In the case of Precast panelled walls the vertical (filled and sealed) joint lines between the panels are to be protected by the application of 250mm wide self-adhesive strips of **Jaydex Nova - Adhesive** membrane prior to the application of the main **Jaydex** membrane system to the wall areas.

Note: The membrane junctions between the vertical wall **Jaydex** Torch-on membrane and any horizontal under floor **Jaydex** Torch-on membrane or DPC are illustrated in our relevant standard detail guides.

The information contained in this Specification is based on our experience and testing, and represents the latest information available at the date of production. No responsibility is taken for uses to which this information may be put, but we advise that where application of products and processes is in complete conformity with this specification, an appropriate warranty may be available. We reserve the right to update information parameters and formulations at any time without prior notice.

Membrane Application to Roof – if applicable

If applicable the **Jaydex Novater** membrane is applied over the future buried roof and would be overlapped down over the already applied wall membrane with a Drainage Cell / Geotextile overlay prior to the earth overlay.

PROTECTION**To Horizontally Laid Membrane on Concrete Tidy Slab / Sand Blinding**

The applied **Jaydex Novater** membrane system can be protected with Flute Board sheeting using gun applied spots of **Jaydex Easygum™** to adhere it to the laid **Jaydex Novater** sheet surface. This would be carried out prior to other sub trade activity taking place over the laid membrane such as the reinforcing mesh and subsequent concrete floor slab pour installation.

To Vertically Laid Membrane on Concrete Walls

The applied **Jaydex Novater** membrane is to be protected against subsequent drainage backfill with 30mm (minimum) thickness of polystyrene sheets close butted and adhered direct to the membrane face with gun applied **Jaydex Easygum™**. Where the **Jaydex Novater** membrane is to be left permanently exposed above ground level there are two options for terminating its top edge:

1. By mechanically fixing a proprietary metal termination bar* and then applying two coats of **Jaydex Alomicote** over any permanently exposed area of left over membrane.
2. By applying a **Jaydex Easygum™** Reinforced Bandage to cover the top edge of the **Jaydex Novater** sheet and then applying two coats of **Jaydex Enviroflect** over the **Jaydex Easygum™** bandage*, inclusive of any left over permanently exposed sheet membrane.

* Both are covered in our relevant detailed drawing guides

Note: After the above has been completed there is a further option of applying an acrylic over coating (colour optional) to these areas.

WARRANTY

When **Jaydex** Licensed Contractors apply this membrane system in accordance with the specification, a standard warranty will be issued for up to twenty (20) years.

The information contained in this Specification is based on our experience and testing, and represents the latest information available at the date of production. No responsibility is taken for uses to which this information may be put, but we advise that where application of products and processes is in complete conformity with this specification, an appropriate warranty may be available. We reserve the right to update information parameters and formulations at any time without prior notice.



NOVATER Plastomeric Modified Bitumen Waterproofing Membrane

Product description

Novater is a market-leading, proven effective plastomeric modified bitumen waterproofing membrane (APP) for use on foundations, floors or ground slabs, wall constructions, water tanks and tunnels.

Industrially manufactured, by impregnation of the reinforcement with the waterproofing compound, Novater is an APP Polyester-reinforced membrane. The composite reinforcement, made of nonwoven spun-bonded polyester in combination with fibreglass, delivers outstanding mechanical characteristics, with excellent dimensional stability and elastic performance.



Key product benefits

- **Convenient and cost-effective:** An easy to apply*, single product solution in ready-to-use 10m rolls
- **Very versatile:** Can be applied to (concrete, masonry, steel, wood, insulation panel, membrane)
- **Highly stable:** High levels of thermo-dynamic stability make Novater suitable for any climate
- **100% fusion bonded:** A torch-on sheet membrane that, once the lap is sealed, is completely impervious to water
- **Extreme longevity:** Outstanding durability with 50 years' service life
- **Proven robust:** Novater has over 20 years' of proven performance in New Zealand

*Novater is a torch-on solution that must be applied by a Jaydex Licensed Contractor

Ideal applications

- Tanking and damp proofing of buried floors and walls
- Foundations, floors, ground slabs
- Tunnels
- Water Tanks
- Pool complexes
- All other concrete, masonry, steel, wood, insulation applications

Out of sight, out of mind

Novater is a high performance sheet membrane with excellent mechanical characteristics:

- Resistance to acids and inorganic salts
- Resistance to O₃ and H₂S
- Water absorption ± 1%
- Resistance to low temperatures
- Resistance to industrial atmosphere
- Resistance to heat sliding thanks to high chemical inertia

Novater has a proven track record for tanking and damp proofing of buried floors and walls around New Zealand over the past 20 years.



A fit-for-purpose, specialist torch-on application

The excellent thermoplastic properties of the waterproofing compound allow the application of Novater with a specialist torch-on system or hot-air generator. The application of the membrane should ideally be carried out in good weather conditions and after the substrate has been adequately cleaned and prepared.

PLEASE NOTE: Novater must be installed by a Jaydex Licensed Contractor – please see our website for a list of Licensed Contractors in your area.

"Jaydex was first to introduce specialist torch-on tanking waterproofing systems into New Zealand in 1986. For over 20 years Novater has offered exceptional product stability, and performance with unparalleled longevity, which continues to ensure a very high level of trust for our customers."

Bob Wilson, Managing Director, Jaydex International



POLYNESIAN SPA



MIDDLEMORE HOSPITAL



MON DESIR TAKAPUNA



NOVOTEL ROTORUA

Compliance

- Novater complies with the New Zealand Building Code in particular clauses B2, E2 and F2.
- Novater is an acceptable solution in regards to E2/ AS1 2005 DP Membrane.
- Novater, if installed and maintained in accordance with the conditions of the CodeMark certificate AQ-031015-CMNZ, Novater S-C will comply with;
 - B1.3.1, B1.3.3 (a), (d), (e)
 - B2.3.1 (a), B2.3.2 (a)
 - E2.3.3, E2.3.7 (a), (b) (c)
 - F2.3.1



Warranty

Novater membrane system has been tested to international standards and is warranted for 20 years.

Novater must be installed by a Jaydex Licenced Contractor to the supplier's specification.



JAYDEX NOVATER

Non woven spun bonded polyester combined with fibre glass.

4131J - JAYDEX TANKING SYSTEMS

1. GENERAL

This section relates to the supply and installation of the following below ground tanking membrane system:

JAYDEX Novater: Torch applied and fusion bonded single layer sheet membrane system

1.1 Documents

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

NZBC E2/AS1	External moisture
BRANZ BU 397	Waterproofing Basements
BRANZ Good Practice Guide:	Concrete Floors and Basements

1.2 Manufacturer / Supplier documents

Manufacturer's and supplier's documents relating to work in this section are:

JAYDEX Specification	NOVA201C Novater on Concrete / Compacted Fill
JAYDEX Specification	NOVA 210C Novater double sheet buried concrete wall / floors

Code Mark: AQ 031015 - CMNZ

JAYDEX Waterproofing Manual

Manufacturer/supplier contact details

Company:	JAYDEX International Ltd
Web:	www.jaydex.co.nz
Email:	sales@jaydex.co.nz
Telephone:	0800 529 339
Facsimile:	09 444 0132

2. REQUIREMENTS

2.1 No Substitutions

Substitutions are not permitted to any specified **JAYDEX** International Ltd system, or associated components and products.

2.2 Qualifications

Tanking work to be carried out by licensed Contractors approved by **JAYDEX** International Limited.

Licensed Contractors may be found at:

Web: www.jaydex.co.nz

Telephone: 0800 529 339

3. WARRANTIES

3.1 Warranty – Manufacturer / Supplier

Provide a material manufacturer/supplier warranty.

15 years: For **JAYDEX Novater** tanking system.

- **JAYDEX** Licensed Contractors to provide this warranty on the manufacturer's standard form
- Commence the warranty from the date of completion of installation

Refer to the general section 1237 WARRANTIES for additional requirements.

3.2 Warranty – Installer / Applicator

Provide an installer/applicator warranty:

5 years: For **JAYDEX Novater** tanking system installation

- **JAYDEX** Licensed Contractors to provide this warranty on the manufacturer's standard form
- Commence the warranty from the date of completion of installation

3.3 Performance

Accept responsibility for the waterproofing performance of the completed below ground tanking system.

3.4 Quality Assurance

Maintain quality necessary to assure that work is performed in accordance with this specification and the qualifying requirements of **JAYDEX** International Limited.

Ensure that **JAYDEX** International Limited Quality Control sheets are completed fully and faithfully for each installation area.

4. PRODUCTS

MATERIALS

4.1 Primers

JAYDEX Bitumen Primer quick drying bituminous primer compatible with the waterproofing membrane and formulated to prepare the substrate for optimum bonding of the membrane.

4.2 Single layer waterproofing membrane

JAYDEX Novater high non-woven polyester reinforced modified bitumen torch applied waterproofing membrane all marked with the manufacturers mark.

4.3 Protection sheet

Rot-proof polystyrene foamed plastic lightweight sheet.

5. REQUIREMENTS

5.1 General

Work and materials to BRANZ BU 397, BRANZ Good Practice Guide and **JAYDEX** International Limited Documents.

5.2 Storage – Sheet membrane

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 crushed.

5.3 Confirm layout

If not detailed on the drawings confirm the layout to suit site conditions and **JAYDEX** International Limited Specification.

APPLICATION – PREPARATION

5.4 Preliminary work

Ensure that preliminary work including flashing rebates, fillets and any other fixings are complete and properly constructed to enable the systems to work. The substrate is to be smooth, clean and dry. Identify areas of potential movement and plan for movement joints

5.5 Acceptance of substrate

Conform that the substrate complies with the [NZBC E2/AS1](#) for the relevant substrates and **JAYDEX** International Limited documents, including fillets, sumps, outlets and projections and ensure work is of the required standard.

5.6 Concrete substrate

Ensure concrete substrate has been allowed to cure for at least 28 days and has a moisture content of less than 75% RH before commencing application. Prepare surface including vacuum cleaning and acid etching/diamond grinding as necessary to leave smooth clean dry and free of debris. Make good any cracks with non-shrink grout.

5.7 Turn ups

Where tanking is turned up against hardened concrete, ensure the surface is smooth and free of all sharp projections. Fill internal corners with a fillet of latex-modified cement mortar epoxy mortar or bituminous putty.

5.8 Turn downs

Where tanking is turned over an external corner, first grind the corner to produce a smooth 25mm radius or chamfer.

5.9 Clean surfaces

Clean surfaces with a broom or oil free compressed air to remove dust, loose particles and material that could affect bonding.

5.10 Dress of hard fill surface

Dress off surface of hard fill with a 15mm layer of fine, clean sand rolled to a smooth surface. Ensure concrete surface is a smooth steel trowel U3 surface to NZS3114. Grind off any steps or sharp protrusions.

5.11 Remove back forms

Remove back forms to ensure no vapour pressure develops beneath the membrane.

APPLICATION – SHEET MEMBRANE

5.12 Install sheet membrane

Install **Novater** reinforced modified bitumen torch applied membrane system strictly in accordance with **JAYDEX** International Limited Installation Procedures.

5.13 Priming

All surfaces are to be primed strictly in accordance with **JAYDEX** International Limited recommendation ensuring an even coverage is achieved. Primed areas left for more than 5 days must be re-primed prior to membrane installation.

5.14 Laying

Lay membrane using torch applied fusion bonding to the substrate as well as to the joints.

5.15 Heat control

Control heat to ensure the membrane is fully bonded to the substrate with all laps properly formed. Overheating membrane may damage the polyester reinforcement.

5.16 Novater sheet membrane

Fully torch to substrate up and around the footings to the highest point required to achieve a perfect tanked basement or building.

5.17 Weld joints

Weld joints using heat to **JAYDEX** International Limited requirements.

5.18 Penetrations

Form, or mould by torching with required upstands and downturns and all penetrations to **JAYDEX** International Limited details.

APPLICATION – SECTIONAL COMPLETION

5.19 Sectional completion

As sections of the tanking are completed, arrange for inspection of the work before covering with protective sheets, walls, or slabs.

APPLICATION – PROTECTION

5.20 Protect vertical surfaces

Protect the vertical tanking from damage before covering with protective sheets.

5.21 Protect horizontal surfaces

Protect the horizontal tanking from damage during laying by ensuring applicators wear soft soled shoes. Except for inspection purposes do not allow traffic on the membrane after installation and before protection sheets have been laid.

5.22 Install polystyrene protection sheets

Neatly scribe and fit sheets, spot fixing them with adhesive and taped over joints, all to JAYDEX International Ltd requirements for this work, to fully protect the whole of the tanking as backfill is placed.

5.23 Cover horizontal surfaces

After laying is complete cover the tanking on horizontal surfaces with a 50mm layer of 15 MPa concrete. Place by pumping or similar to limit the possibility of damage due to construction plant.

COMPLETION

5.24 Clean up

Clean up as the work proceeds.

5.25 Leave

Leave this work in a sound, coherent, voidless and impermeable smooth condition, completely waterproof, free of any defect and with protection sheets firmly in place.

5.26 Remove

Remove debris, unused materials and elements from the site.

6. SELECTIONS

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

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

6.1 Pressure rating

JAYDEX Novater is suitable for applications up to a water pressure of 25 N/cm².

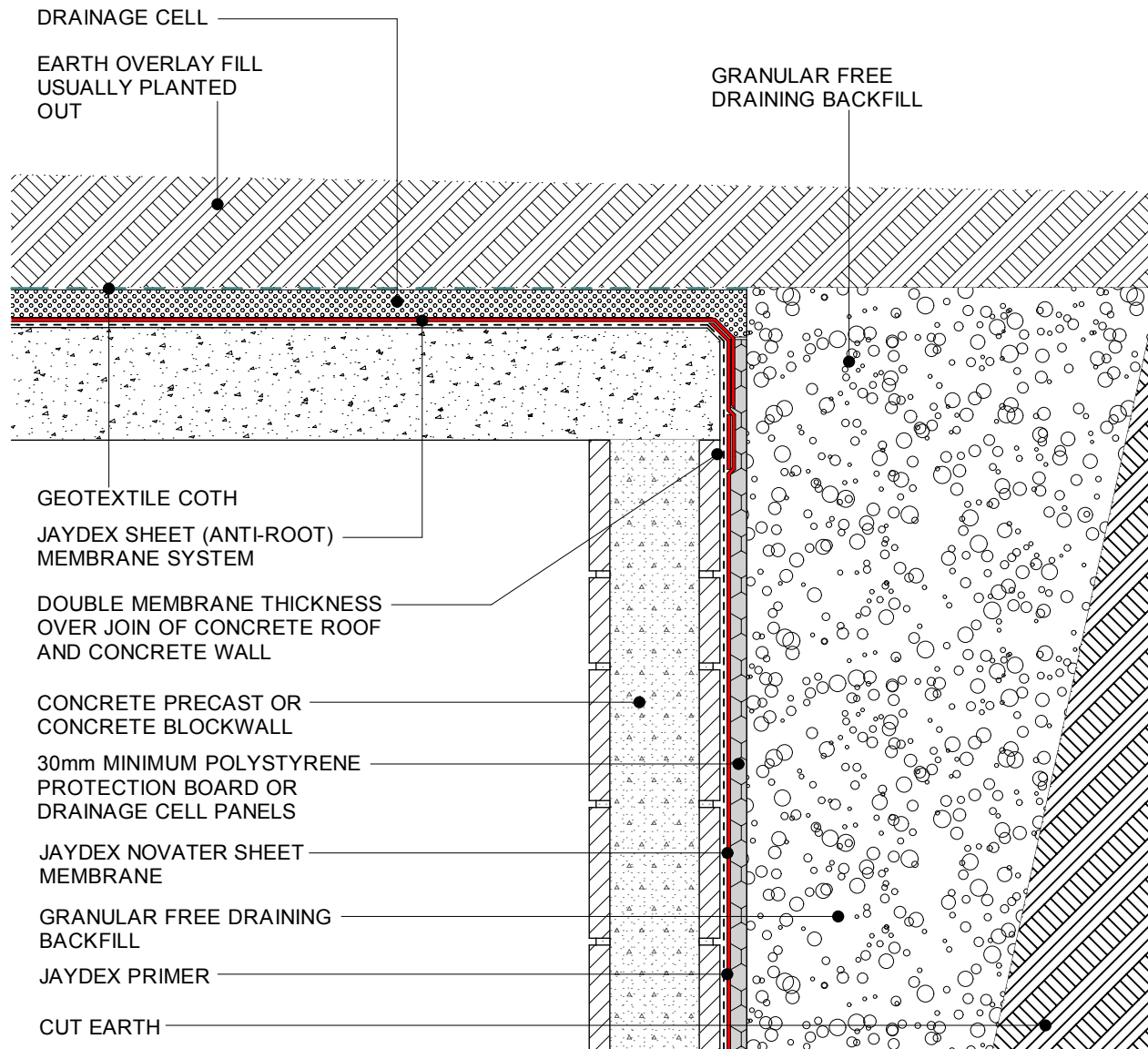
6.2 JAYDEX Novater single layer waterproofing membrane

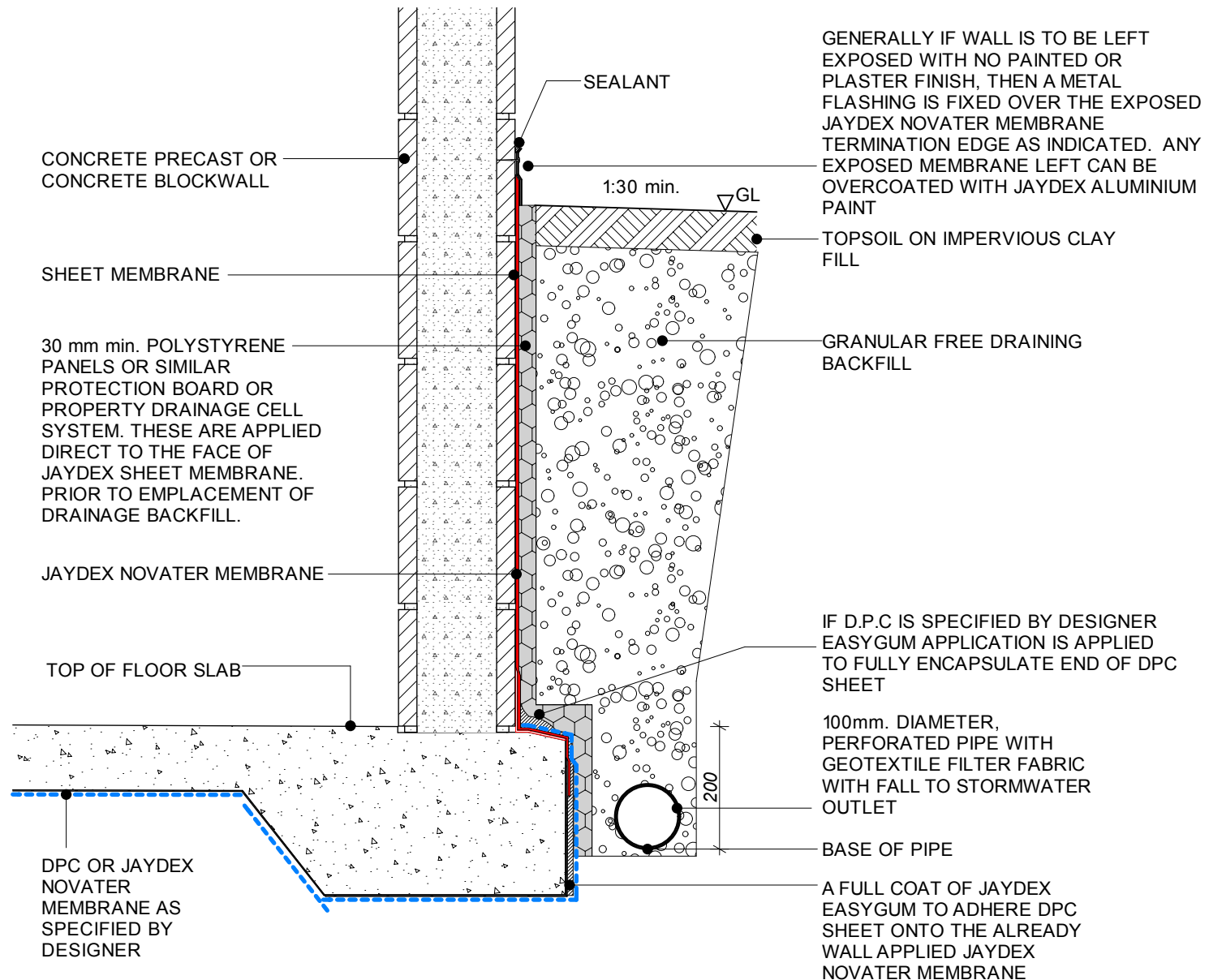
Brand: **JAYDEX Novater**

Thickness: 3mm

6.3 Polystyrene protection sheet

Manufacturer: Expol Limited





ROOT RESISTANT JAYDEX
SHEET MEMBRANE
THROUGHOUT THE PLANTER
BOX

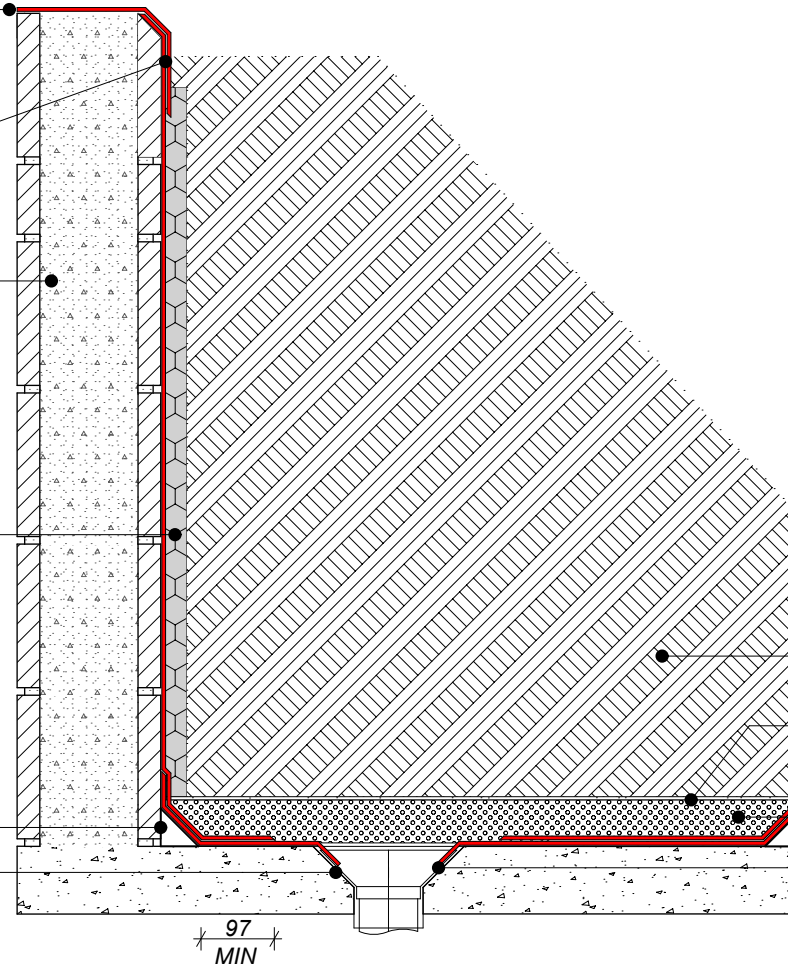
DOUBLE THICKNESS
OF MEMBRANE

CONCRETE PRECAST OR
CONCRETE BLOCKWALL

PROTECTION BOARD
OR DRAINAGE
PANELS

ANGLE FILLET

RECESS FOR FLAT TOPPED
DRAIN OUTLET TO SEAT BELOW
FLOOR LEVEL OF PLANTER



- *100mm MIN OVERLAP FOR ALL UPSTAND/JOINT LAPS.
- *50mm MIN PAST THE TOP OF ANGLE FILLET FOR ALL BACKING STRIPS OR UPSTANDS.
- *ALL INTERNAL AND EXTERNAL CORNERS MUST HAVE A TRIPLE THICKNESS OF MEMBRANE.
- *ALL SHARP EDGES MUST BE BEVELLED AND ALL INTERNAL TRANSITIONS MUST HAVE ANGLE FILLETS.

SOIL

GEOTEXTILE CLOTH

DRAINAGE / CELL

MEMBRANE SYSTEM DRESSED
INTO FLAT TOPPED DRAIN
OUTLET WITH CLAMP RING TO
SECURE TERMINATION OF THE
SHEET MEMBRANE SYSTEM.

NOTE: ALL ASSOCIATED LIFT PITS ARE TO BE ENCAPSULATED EXTERNALLY WITH TWO SHEETS OF JAYDEX NOVATER MEMBRANE WITH JAYDEX NOVAPOXY APPLIED ON INTERNAL WALLS OF LIFT PIT

CONCRETE PRECAST OR CONCRETE BLOCKWALL

PROPRIETY WATERSTOP

JAYDEX NOVATER SHEET MEMBRANE LAPPED ON TOP OF DPC WITH FULL EASYGUM ENCAPSULATION OF ITS LEADING EDGE

TOP OF FLOOR SLAB

DPC OR JAYDEX NOVATER MEMBRANE AS SPECIFIED BY DESIGNER

SAND BLINDING OR 50mm CONCRETE

150
600

JAYDEX NOVATER SHEET MEMBRANE
EASYGUM
PILE CAP

TOPSOIL ON IMPERVIOUS CLAY FILL

GRANULAR FREE DRAINING BACKFILL

30 mm min. POLYSTYRENE PANELS OR SIMILAR PROPERTY DRAINAGE CELL SYSTEM. THESE ARE APPLIED DIRECT TO THE FACE OF JAYDEX SHEET MEMBRANE. USING JAYDEX EASYGUM.

JAYDEX NOVATER SHEET MEMBRANE

DOUBLE SHEET APPLICATION OF JAYDEX NOVATER AT THE FILLET TRANSITION.

GROUND BEAM

JAYDEX NOVATER SHEET MEMBRANE

TWO THICK APPLICATIONS OF JAYDEX EASYGUM APPLIED RIGHT ACROSS TOP OF PILE CAP AND AROUND ALL REINFORCING RODS/BARS PRIOR TO SUBSEQUENT GROUND BEAM INSTALLATION.

50mm CHAMFER —————

DOUBLE THICKNESS OF
JAYDEX SHEET
MEMBRANE —————

DRAINAGE CELL /
PROTECTION BOARD
OVER SHEET MEMBRANE —————

JAYDEX PRIMER —————

INSITU / PRECAST /
BLOCK CONCRETE WALL —————

