

MARCH 2023



DELTA PRODUCT CATALOGUE

www.deltamembranes.com
01992 523 523

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WELCOME TO OUR PRODUCT CATALOGUE!

Delta Membrane Systems Limited provides a full range of waterproofing and damp proofing solutions for architects, specifiers, developers, contractors, and homeowners on new, retrofit and refurbishment construction and in flood resilience. We also supply ground gas protection membranes, for protecting structures from harmful ground gases such as Radon, Carbon Dioxide, Methane, and Hydrocarbons.

Always Happy to Help

Do you have questions about a project, product, or application? In an ever-changing industry where reduced risk and higher quality is required, you need a waterproofing design partner that is proactive and dedicated to help you keep up with new technologies and solutions to ensure your projects thrive. Whatever the needs of your business, you can rely on the #DeltaTeam to ensure you get the right advice, support, and practical help at exactly the right time to keep you ahead of the competition.

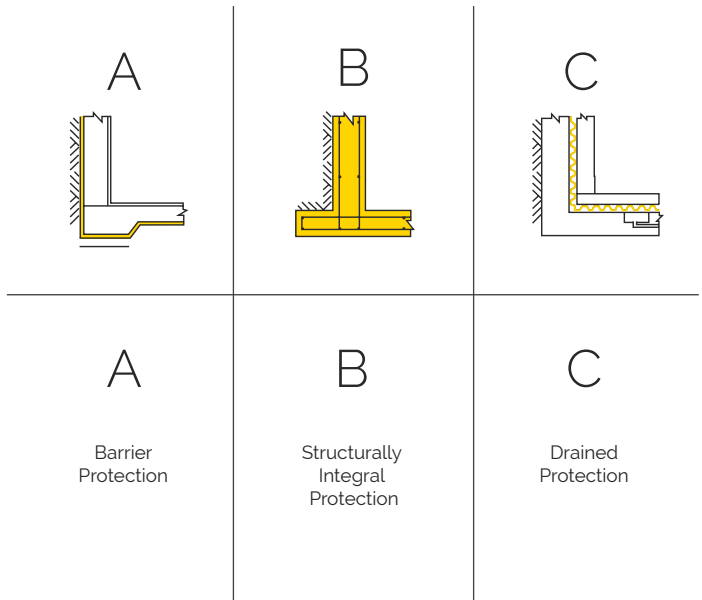
Contact us on 01992 523 523 or
email info@deltamembranes.com



TYPES OF WATERPROOFING

There are many different approaches to structural waterproofing. The construction methods will in part contribute to the specification of types of waterproofing systems and may also determine the overall structural waterproofing strategy.

Structural waterproofing falls into 3 types





SCHOOLS



COMMERCIAL & RESIDENTIAL BUILDINGS



UNDERGROUND CAR PARKING



TUNNELLING



LEISURE FACILITIES



RETAIL UNITS & WAREHOUSES



ARCHIVES/LIBRARIES/VAULTS/MUSEUMS



LISTED BUILDINGS

**BELOW GROUND
WATERPROOFING
SOLUTIONS**



HOSPITALS



INSULATED FORMWORK CONSTRUCTION



1

DELTA

Installing a Delta Membrane System offers complete protection to structures from ground water ingress and contaminants. Our products comply with British Standards 8102:2022, 8485:2015+A1:2019, 85500:2015 and are BBA Accredited.

Our projects include commercial and residential developments, new-build & refurbishment projects and civil infrastructure.

INTERNAL WATERPROOFING



MS 500

An 8mm studded cavity drain membrane suitable for use on internal faces of walls, floors and vaulted ceiling as part of a water management system.

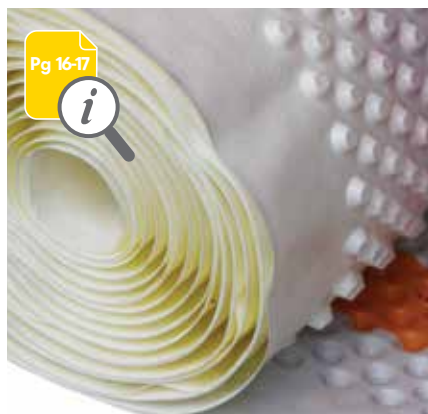
- 8mm studded profile
- Suitable for new, existing and retrofit projects
- Compressive Strength: >250 kN/m²
- Drainage capacity: 2.25 L/S m²

DMS 005

2m x 20m

DMS 007

2.4m x 20m



Pg 16-17



MS 500 FIRE RETARDANT

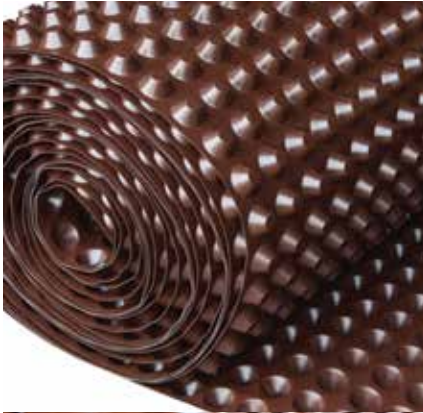
An 8mm studded cavity drain membrane with a Euroclass fire rating of B-S2, d0 (EN 13501-1:2018) suitable for use on internal faces of walls, floors and vaulted ceilings.

- 8mm studded profile
- Euroclass fire rating B-S2, d0
- Compressive Strength: >250 kN/m²
- Drainage capacity: 2.25 L/S m²

DMS 850

2.4m x 20m

INTERNAL WATERPROOFING



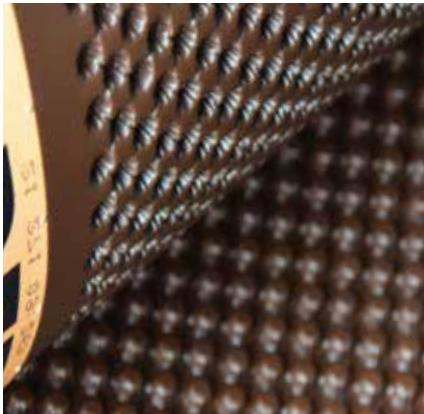
MS 20

20mm studded cavity drain membrane suitable for use on internal faces floors or where higher drainage capacity is required.

- 20mm studded profile
- Suitable for higher volumes of water penetration
- Compressive Strength: >150 kN/m²
- Drainage capacity: 10 L/S m²

DMS 009

2m x 20m



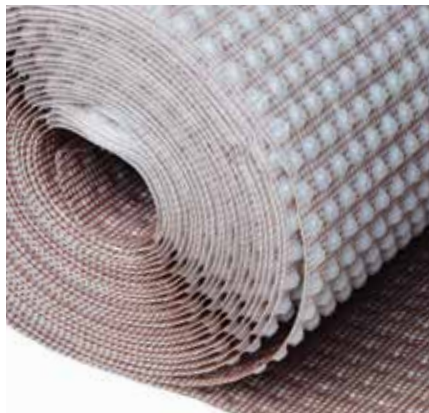
FM

4mm low studded profile specifically designed for floor applications to combat capillary dampness and contamination.

- 4mm studded profile
- Suitable for use on damp proofing walls, floors and vaulting ceilings
- Compressive Strength: 700 kN/m²
- Fast Track installation

DMS 023

2m x 20m



PT

8mm studded HDPE membrane with a heat welded polypropylene mesh. Suitable as an impermeable damp proofing base for plaster or shotcrete (with suitable reinforcement).

- 8mm studded profile
- An effective barrier to the transmission of salts, liquid water and water vapour
- Compressive Strength: $>70 \text{ kN/m}^2$
- Drainage capacity: 5 L/S m^2

DMS 001	1.5m x 10m
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DMS 002	2m x 20m
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PT 3MM

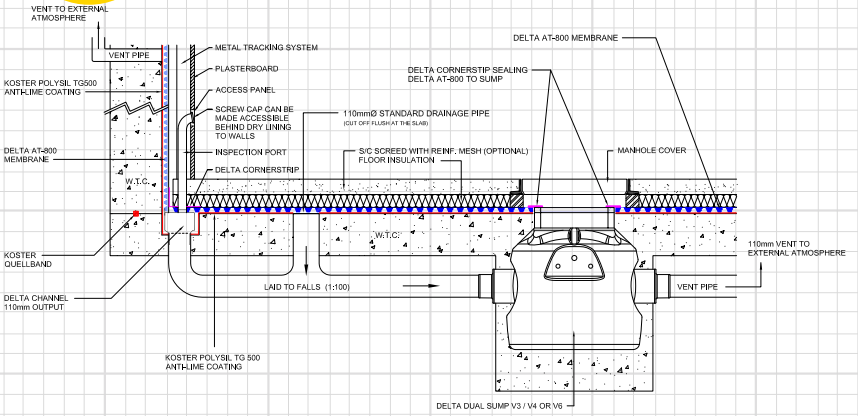
3mm mesh membrane developed specially for addressing the issue of damp and/or contaminated walls.

- 3mm studded profile
- Provides key for plaster, renders or dab fix
- Drainage capacity: 2 L/S m^2 / Air volume between studs 2 L/m^2
- Resistant to chemicals, root penetration, rot proof and neutral towards drinking water

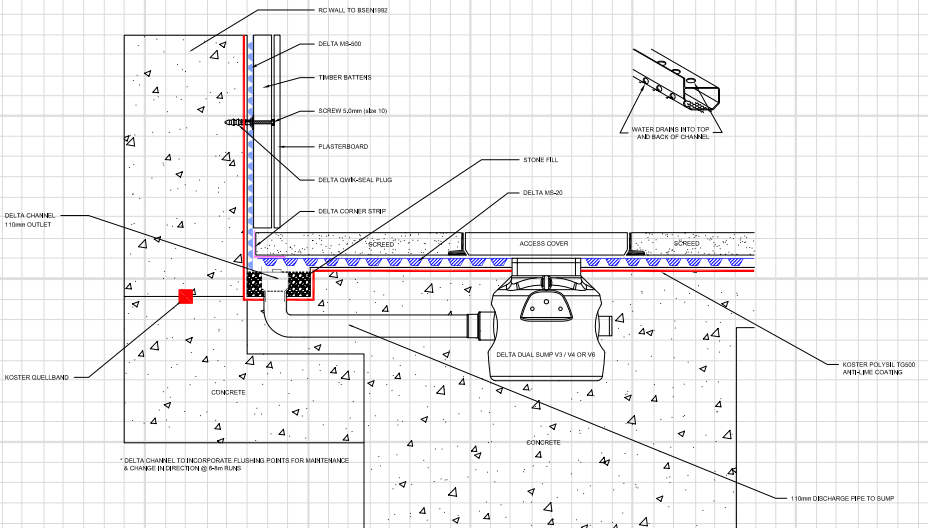
DMS 030	1m x 20m
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DMS 027	2m x 20m
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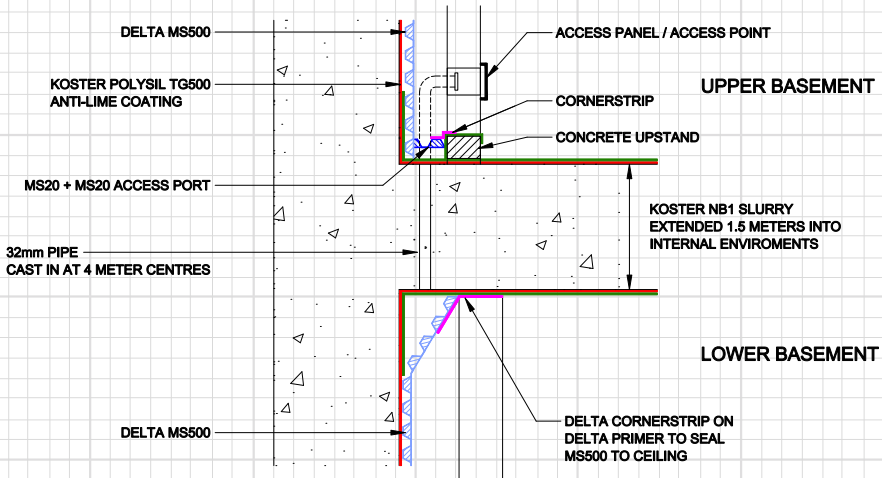
MODULAR DRAINAGE TO SUMP



RECESSED CHANNEL - SUMP DETAIL



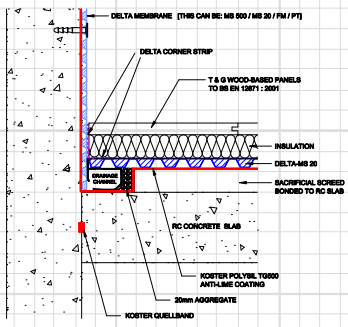
INTERMEDIATE SLAB DRAINAGE DETAIL



SACRIFICIAL SCREED 110MM CHANNEL OUTLET

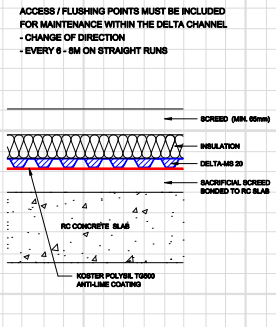
OPTION 1

DRAINED PROTECTION WALL AND FLOOR APPLICATION
 - WITH DRAINAGE CHANNEL ON SLAB
 SACRIFICIAL SCREED / T & G FLOOR PANELS



OPTION 2

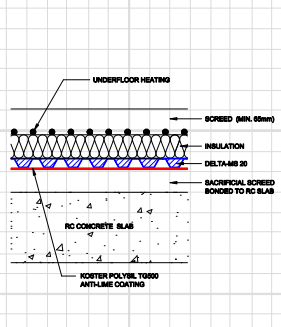
DRAINED PROTECTION WALL AND FLOOR APPLICATION
 - WITH DRAINAGE CHANNEL ON SLAB
 SACRIFICIAL SCREED / SCREED FINISH



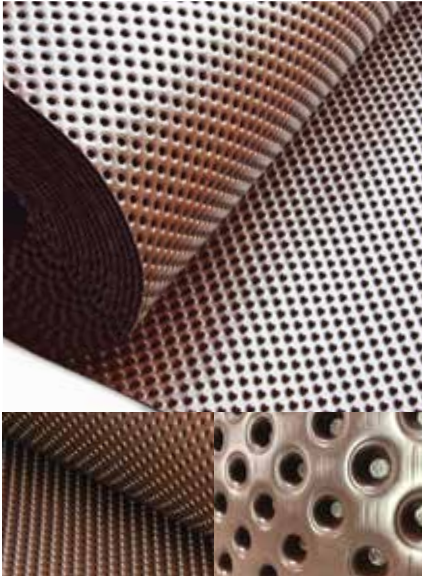
ACCESS / FLUSHING POINTS MUST BE INCLUDED FOR MAINTENANCE WITHIN THE DELTA CHANNEL
 - CHANGE OF DIRECTION
 - EVERY 6 - 8M ON STRAIGHT RUNS

OPTION 3

DRAINED PROTECTION WALL AND FLOOR APPLICATION
 - WITH DRAINAGE CHANNEL ON SLAB
 SACRIFICIAL SCREED / SCREED WITH UNDERFLOOR HEATING



INTERNAL WATERPROOFING



AT 800

AT 800 is an innovative 9mm Type C membrane which conforms to BS 8102:2022 and BS 8485:2015+A1:2019, table 7 achieving waterproofing and ground gas protection simultaneously.

- 9mm studded profile
- Conforms to BS 8102:2022 and BS 8485:2015+A1:2019, Table 7
- Air volume between studs approx. 7.9 L/m²
- Ideal for complex substructures

DMS 026

2m x 20m



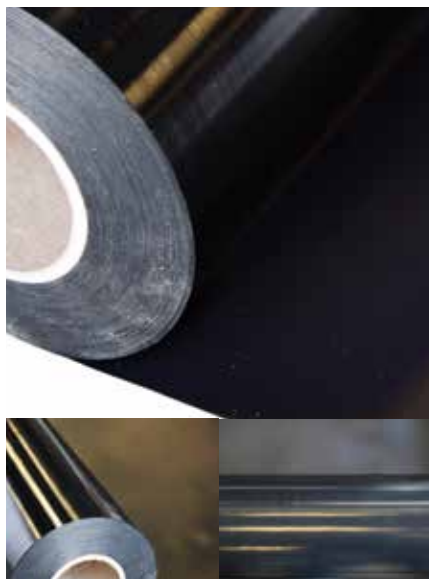
JOIST BOOTS / TOP HATS

Solving long standing problems, Delta "boots" steel joist end "top hats" make a real difference in structural waterproofing situations where steels are embedded in walls, in below ground sections of structures. Available in any size, as we make these to order with a 3-5 day turn around.

- Made to order
- Protects Steel Joists
- Prevents Steel Joists from rusting
- Continuous waterproofing when used in conjunction with waterproofing solutions

SPECIAL ORDER

DAMP PROOFING



HIGH PERFORMANCE DPC

Delta High Performance DPC is a high performance polymeric material designed to suit all applications. Available in various widths either for use in buildings up to four storeys or for use in buildings in excess of four storeys.

DMS 300	100mm x 20m
DMS 301	150mm x 20m
DMS 303	300mm x 20m
DMS 304	450mm x 20m
DMS 305	600mm x 20m
DMS 345	1000mm x 20m



WATER BASED EPOXY RESIN

Water Based Epoxy Resin is suitable for all applications where concrete or masonry requires waterproofing and protection. It is applied in the same manner as ordinary emulsion paint with the added benefit of application in damp conditions. Once dried Water Based Epoxy leaves a tough, non-toxic, waterproof, easy to clean surface.

DMS 485	2.5 ltr	White
DMS 486	2.5 ltr	Clear
DMS 487	2.5 ltr	Grey
DMS 488	2.5 ltr	Blue
DMS 144	5 ltr	White
DMS 148	5 ltr	Clear
DMS 149	5 ltr	Grey
DMS 150	5 ltr	Blue



TYPE C WATERPROOFING & GROUND GAS PROTECTION



COMBINED SYSTEMS



DAMP PROOFING - LONDON UNDERGROUND STATION



ON SITE SUPPORT



SUMP PUMP REBATE - TYPE C SYSTEM



DAMP PROOFING & WATERPROOFING



**INTERNAL
WATERPROOFING
SOLUTIONS**



FIRE RETARDANT



DELTA MS 500 INSTALLATION



STRUCTURES OF HISTORICAL IMPORTANCE



BASEMENT DRAINAGE



DAMP PROOFING



LIGHTWELL WATERPROOFING



HERITAGE WATERPROOFING



COMMERCIAL WATERPROOFING



Fire Retardant Type C Waterproofing

Fire Retardancy

In an age where prevention to fire is rightly under scrutiny in the construction industry, thoughts should be given to specifying materials which have properties which not only reduce the risk to occupants' safety, but also have a lesser reaction time in the event of fire.

Important considerations should be given when designing a basement or below ground structure on how it will behave during the event of fire. Whilst a basement is not counted when assessing the numbers of storeys of a property for fire resistance and means of escape, it should be factored into design and be a key consideration.

Typically, 30 minutes fire resistance is required for a two-storey house over a basement, which increases to 60 minutes where the number of storeys is four or more.



Standard Type C Membrane



Delta MS 500 Fire Retardant



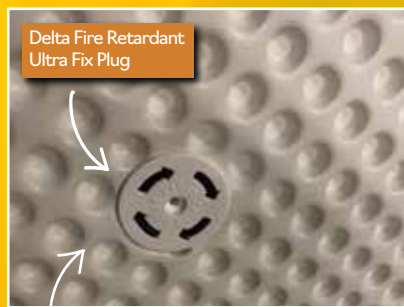
Don't forget Deltas Ultra Fix Plugs for your complete Waterproofing Solution

See pg 26 for more Ancillaries

Delta MS Fire Retardant System

The Delta Fire Retardant Type C Cavity Drainage System is the safest form of waterproofing system available, offering complete protection from water or water vapour and fire-retardant protection. Delta MS 500 Fire Retardant Membrane is an extremely effective Type C cavity drain waterproofing membrane which utilises the highest grade of High-Density Polyethylene (HDPE) with a fire classification of B-s2, d0.

When burnt, Delta MS 500 Fire Retardant HDPE membrane inhibits and delays the spread of fire by suppressing the chemical reactions in the flame, with no dripping fire debris.



Delta Fire Retardant Ultra Fix Plug

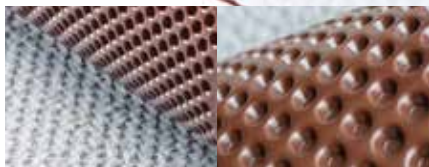
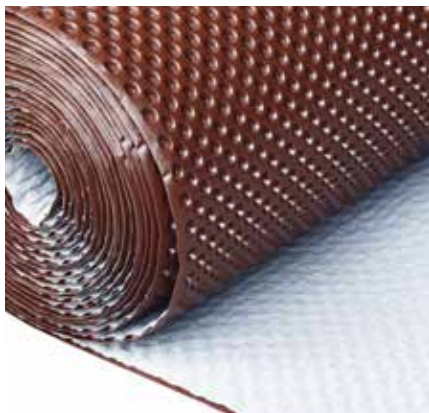


Installation of Delta MS 500 Fire Retardant

Sheet Thickness: 0.5mm
Stud Height: 8mm
Roll Size: 2.4m x 20m

Compressive Strength: $>250 \text{ kN/m}^2$
Drainage Capacity: 2.25 L/S m^2
135 L/MIN M
8 100 L/H M

EXTERNAL WATERPROOFING



NP DRAIN

NP Drain is a 8mm, two-layer geocomposite external drainage membrane suitable for vertical and horizontal drainage in civil engineering, buildings, tunnels, and retaining walls.

- Acts as a protection layer over Type A Primary Waterproofing Systems
- Drainage rate approx. 2.25 L/S/ m²
- Compressive Strength: >150 kN/m²
- Rot-proof, impact resistant and non-deformable

DMS 022

2m x 20m



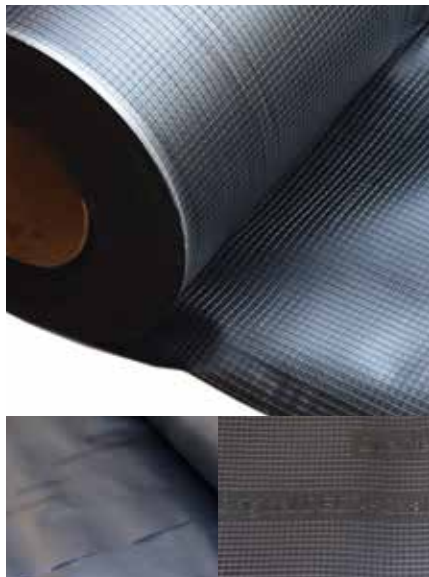
MS DRAIN

MS Drain serves as a drainage layer with fused-on geotextile. The fused-on hydrophilic geotextile ensures water drains reliably. The sheet features a high compressive strength of c. 500kN/m² as well as more than 8,900 dimples/m².

- 4mm studded profile
- Drainage rate approx. 0.6 L/S/ m²
- Compressive Strength: >500 kN/m²
- May be installed at depths of up to 10 metres

DMS 233

2m x 30m



ROOT BLOCK

Delta Root Block provides robust root barrier protection to primary waterproofing systems covering green roofs, blue roofs, hybrid roofs or where intrusive root systems are present.

- Cost effective root barrier
- Prevents, contains and mitigates root penetration
- Compatible with bitumen
- Suitable for existing and newly planted trees and plants

DMS 119

4m x 25m



GEO-DRAIN QUATTRO

A unique 9mm compact four-layer external drainage membrane suitable for vertical and horizontal drainage, maximum safety for thick viscoelastic coatings and a multitude of alternative Type A systems.

- 9mm studded profile
- Air volume between studs 7g L/m²
- Compressive Strength: >400 kN/m²
- Geotextile filter to stop the drain clogging
- Perforated slip layer with wick

DMS 006

2m x 12.5m

EXTERNAL WATERPROOFING



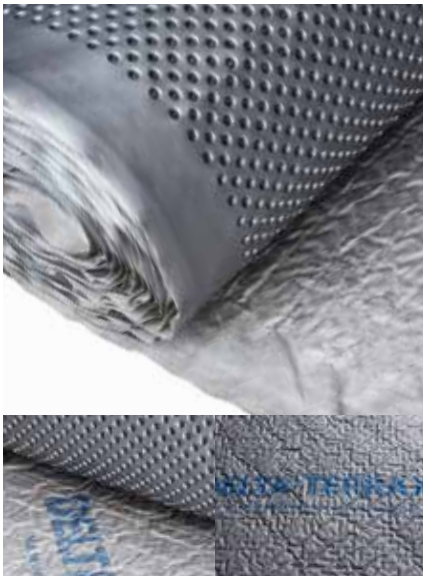
FLORAXX TOP

Floraxx Top is a protective and drainage membrane with water storage function, equipped with an integrated filter-stable geotextile which provides a surface drainage and water storage solution in one. Ideal for green roofs (both extensively and intensively) planted.

- Acting as a protection, filtration, and seepage layer, retains 7 L of water per m²
- Compressive Strength: >200 kN/m²
- May be used on green inverted roofs (S value: c.0.4M)
- Integrated geotextile layer

DMS 205

2m x 10m



TERRAXX

9mm dimpled sheet membrane with geotextile layer which acts as a surface layer. Used as a green roof external drainage layer which also offers protection to the primary waterproofing system.

- 9mm studded profile
- Compressive Strength: >400 kN/m²
- Prevents frost damage and encrustations
- Reliably protects and insulates waterproofing layers against mechanical damage

DMS 025

2.4m x 12.5m



Delta Aquaduct is an external land drain coil. Installed externally to direct ground water into a sump or soak away and reduce pressure from bearing on the structure. Delta Aquaduct is perforated for maximum performance and incorporates an outer geotextile filter to prevent particles from entering the conduit system. Available in 2 lengths/widths with complimentary connectors also available ((please see below table for DMS codes) also referred to as couplers or joiners) to connect multiple coils of Delta Aquaduct together. This ideal, cost-effective external drainage option is suitable for most projects. Delta Aquaduct coil is designed for excellent water flow and allows for easy maintenance and inspection.

DMS078-1	Aquaduct 60 (60mm x 50m)	DMS 145	Aquaduct 60 End Caps (red/Blue bung)
DMS 085	Aquaduct 100 (100mm x 50m)	DMS 095	Aquaduct 100mm T-Piece Connectors
DMS 087	Aquaduct 60mm Straight Connectors	DMS 096	Aquaduct 100mm Straight Connectors
DMS 089	Aquaduct 60mm T-Piece Connector	DMS 098	Aquaduct 100mm Y-Piece Connector
DMS 102	Aquaduct 60mm Y-Piece Connectors		



GEO-DRAIN CLIPS

Geo-Drain Clips are used to securely fix external drainage and protection membranes such as Geo-Drain Quattro, Terraxx or NP Drain.

DMS 093

Box of 100



PODIUM DECK



DELTA FLORAXX TOP - GREEN ROOF



PODIUM DECK



GREEN ROOF



DELTA TERRAXX



HYBRID ROOF

EXTERNAL WATERPROOFING SOLUTIONS



DELTA GEO-DRAIN QUATTRO



WELBECK ABBEY



DELTA GEO-DRAIN QUATTRO



COMMERCIAL STRUCTURE



RESIDENTIAL STRUCTURE



TWIN / COMBINATION - 2 FORMS



TWIN / COMBINATION - 2 FORMS



DELTA GEO-DRAIN QUATTRO

GLASS INSULATION



DELTA GLASS FLOOR BOARD T4

Delta Glass Floorboard T4+ is a superior insulation which offers a high compressive strength. Manufactured from specially graded recycled glass and natural raw materials. When joint sealed is impermeable to water vapor.



DELTA GLASS WALL BOARD T3+

Delta Glass Wall Board T3+ insulation is extremely popular. Delta Glass T3+ consists of T3+ slabs bonded together, the upper surface of the insulation is lined with a PE/Glass fleece composite.



DELTA GLASS ROOF BOARD G2 T3+

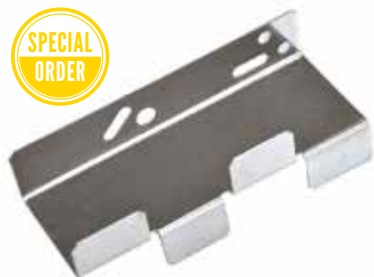
Delta Glass Roof Board G3 T3+ is a robust, Radon protective insulation with a high compressive strength. G2 T3+ can be used as a single layer or as a first layer in a two-layer insulation system.



DELTA GLASS PERINSUL HL

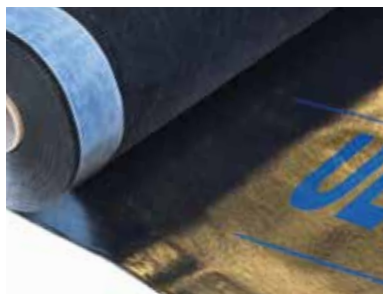
Delta Glass Perinsul HL is an extremely high-density speciality product used to eliminate structural thermal bridging. Delta Glass Perinsul HL's upper side (Green Side) and lower surface of insulation are bitumen coated and laminated with glass reinforced fleece, compatible with mortar.

For all Special Orders please contact 01992 523523



DELTA GLASS PC F ANCHOR (INSULATION FASTENING)

Delta Glass PC F Anchor is a unique stainless-steel anchor fixing which enables complete continuation of Delta Glass to the wall and soffit on installation. Suitable for supported and accepting of screw nail anchor substrates.



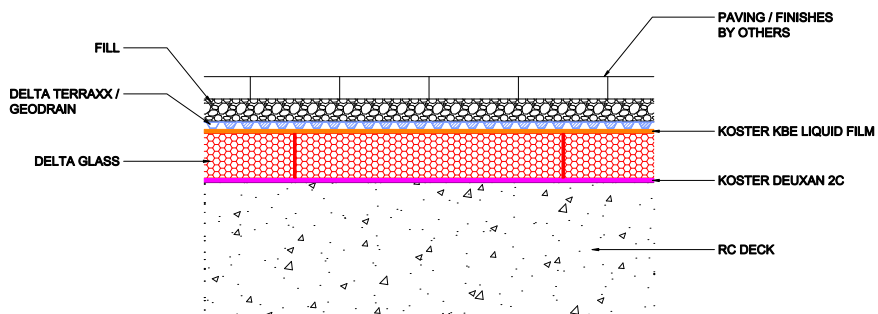
DELTA ULTRA CONTROL VCL

Delta Ultra Control VCL is a robust, highly reflective air and vapour control layer (AVCL), suitable for timber, masonry or steel. Offering excellent thermal resistance, Delta Ultra Control VCL is available with integrated tape to seal overlaps to ensure radiant heat is reflected back into the structure, minimising absorption and energy transfer.

DMS 046

1.5m x 50m

RC DECK & DELTA GLASS - PAVED DECK



ANCILLARIES



ROPE

A dependable sealing for Delta fixing plugs which do not have grommets. Delta Rope is ideal for sealing joints in MS20 and in stud to stud joints.

DMS 011 **4.75m x 10mm**



DOUBLE SIDED TAPE

This strong and durable double sided butyl tape is ideal for sealing membranes together at overlaps/adjacent seals.

DMS 012 **22.5m x 28mm**



CORNER STRIP

A waterproof, firm, and lasting single-sided sealing tape, typically used for sealing and connecting membranes on joints/wall floor junction or overlap.

DMS 020 **150mm x 20m**



FIRE RETARDANT FLEECE TAPE

A high-performance fire retardant fleece backed butyl waterproof sealing tape for butt joints and overlapping of membranes.

DMS 852 **1mm x 220mm x 20m**



FLEECE TAPE

Designed for use with Delta PT membranes. Suitable for joint sealing, detailing around service penetrations where Delta PT membranes have been installed.

DMS 238 **100mm x 20m**



MS CLIPS

Delta MS Clips are used for external waterproofing applications where a external drainage and protection membrane is installed.

DMS 099 **MS Clip**



MS PROFILE STRIP

Delta MS Profile Strip is used in external waterproofing applications as a capping strip where an external drainage and protection membrane is installed.

DMS 017 **2m length**



PT PROFILE STRIP

Delta PT Profile Strip is used in applications where a Delta PT membrane is installed above ground.

DMS 016 **2m length**



DELTA WASHERS

Delta Washers are used for securely fixing external drainage and protection membranes.

DMS 024 **Box of 100**

MEMBRANE FIXING PLUGS



DELTA PLUGS

Provides a fixing point for Delta MS 500 membrane. Delta fixing plugs have a centrally located internal shank which accommodates a 5.5mm dia./size 12 screw at a maximum depth of 30mm.

DMS 014

Box of 100



FLEXI-DRI PLUS PLUGS

These plugs have a centrally located internal shank that can accommodate a 5mm dia./size 10 screw at a maximum depth of 30mm.

DMS 239

Box of 100



QWIKSEAL PLUGS

A watertight self-sealing fixing plug suitable for MS 500 & PT membranes. These plugs have a centrally located internal shank that can accommodate a 5mm dia./size 10 screw at a maximum depth of 30mm.

DMS 131

Box of 100



ULTRA FIX PLUGS

Delta Ultra Fix plugs are specifically designed to fix and secure Delta MS 500 Fire Retardant Membrane. Delta Ultra Fix Plugs offer a tailor-made maximum hold for ease of installation. These plugs have a centrally located internal shank that can accommodate a 5mm dia./size 10 screw at a maximum depth of 30mm.

DMS 051

Box of 200

DMS 050

Box of 200 with Grommets



PT PLUGS

A watertight self-sealing fixing plug which works in harmony with PT or PT 3mm membranes. Delta PT Plugs are available with grommets. Grommets allow for a watertight, self-sealing finish.

DMS 015-1

Box of 200

DMS 133-1

Box of 200 with Grommets



STOP PINS

Delta Stop Pins are self adhesive pins used in external waterproofing applications where external drainage and protection membranes are used.

DMS 029

Box of 100



GL2 BRACKETS

GL2 Drying Bracket/Gyplyner brackets. This adjustable metal bracket helps create a firm & rigid background when lining old masonry walls. The clever but simple bracket is pre-drilled for quick fitting, and is designed to be easily bent to provide extra adjustment.

DMS 049

Box of 100

ANCILLARIES



DELTA THAN

Delta Than is a superior waterproof mastic which is suitable for sealing joints and detailing.

DMS 019 310ml



DELTA MASTIC

Delta acrylic mastic is a universal mastic, ideal for sealing joints and detailing. Delta Mastic is not suitable for use as a waterproof mastic.

DMS 013 400ml



CEM 805 ADHESIVE

CEM 805 Adhesive is used to permanently seal joints between DualProof membranes. CEM 805 Adhesive can also be used to effectively seal the inside of service penetrations in basements against water ingress and is hydrophilic.

DMS 286 290ml



DELTA FIX ADHESIVE

Formulated as an adhesive for bonding and anchoring most building materials e.g. brick, stone, steel, mortar & timber.

DMS 018 400ml (fix adhesive)

DMS 044 Fix Mixer Nozzles

DMS 043 Twin Cartridge Applicator



DRILL BITS

Fully ground, straight shank drill bit. For drilling fixing plugs to membranes.

DMS 076 8mm

DMS 075 9mm

DMS 041 10mm

DMS 042 11mm



PUDDLE FLANGE

A Delta Puddle Flange offers a waterproof seal when applying Delta Modular Drainage. A Delta Puddle Flange prevents ground water percolating up between the 110mm pipe work/RC slab or wall junction, reducing water ingress through the critical floor/wall junctions.

DMS 161 110mm (various sizes available from 32mm to 160mm)



110V PERISTALTIC PUMP

Fitting GEKA. Ideal for pumping waterproofing slurries, renders and plasters. This machine is lightweight, compact, and portable therefore easy to transport and move on site. On trolley, with 35ltr hooper.

DMS 373



C330/03 COMPRESSOR

The C330/30 Compressor is a lightweight, oil free, piston, high pressure air compressor. This unit produces a working pressure of up to 10 bar (1400 rot./min).

DMS 971



HAND LEVER PISTON PUMP HD 2K

For continuous transfer of resin injections, lever hand operated heavy-duty pump is ideal for quick and localised injection works. Supplied with 2 x hose (A & B) and monometer frame.

DMS 957



HAND LEVER PISTON PUMP HD 250

For continuous transfer of resin injections, lever hand operated heavy-duty pump. Supplied with hose and strainer and monometer frame.

DMS 954



2 COMPONENT INJECTION PUMP 1:1

The 2-Component Injection Pump for PUR Gels and Acrylic Resins is easily transportable. The air driven, variable mixing ratio (from 1:1 up to 1:15) when required, has a 14.33 RS flush, HP hose dia 4-7.5 - NPS 1/4". Supplied with mounting kit for suction hose, mixing valve cpl and cpl without valve.

DMS 960



A4000 ECO SPRAYER

The A4000 is an airless spray unit suitable for resin injection. Equipped with high efficiency airless technology, utilising a 6 ltr hooper.

DMS 950

ANCILLARIES



REMOTE CONTROL CABLE

Remote control cable with remote control switch for Peristaltic Pump.

DMS 969 Length 16m



HP-HOSE FOR HAND LEVER PISTON PUMP

High-quality hose with end fittings. Each assembly features one end fitting (which eliminates an incorrectly matched insert and sleeve) and matching hoses. Suitable for the HD 2K and HD 250 models.

DMS 955 5m



HP HOSE FOR A4000

Hose to suit electric airless sprayer A4000 (DMS 950). This quality hose has minimal recoil memory and is super flexible even when under maximum pressure.

DMS 952 16m



REPLACEMENT HOSE KIT

High quality hose with end fittings. Each assembly features one end fitting (which eliminates an incorrectly matched insert and sleeve) and matching hoses. Suitable for the 2-Component Injection Pump 1:1 model.

DMS 962



GEKA COUPLING FIXABLE (DIA 25)

The GEKA Hose Tail 25mm (1") is a professional quality hose and tail. The hose tail features a striking barbed profile that offers maximum protection of the hose pipe and guarantees a strong and secure hose fit.

DMS 970 1" x 10m



AIR HOSE

High quality flexible hose with quick coupling end fittings. Each assembly features one piece end fitting (which eliminates an incorrectly matched insert and sleeve) and matching hoses

DMS 972 Length 11m



INJECTION BALL TAP

Injection Ball Tap with 4 jaw grip. A great tool to complement the Hand Lever Piston Pump HD 250 (DMS 954).

DMS 956



TRAPEZOID MIXING HEAD

High quality stainless steel Trapezoid Static Mixing Head is suitable for use with the 2-Component Injection Pump 1:1 (DMS 960).

DMS 961



HP GUN FOR A4000

A uniquely designed, lightweight, easy to use Airless Spray Gun that delivers the performance you want. This excellent value airless spray gun that is ideal for use with the A4000 Eco Sprayer (DMS 950).

DMS 951



6 LTR HOPPER FOR A4000

This 6 ltr hopper attachment attaches to the airless sprayer A4000. Supplied with filter and cover. Thread M36x2 with return flow hose.

DMS 953



PLASTIC STATIC MIXER FOR HD 2K

Plastic Static Mixer for HD 2K Hand Lever Piston Pump (DMS 957).

DMS 958



PERISTALTIC PUMP MAINTENANCE KIT

Fitting GEKA. Kit contains spray lance 210mm cpl. set with five nozzles. Set includes 4.5, 6.5, 8.5 & 10.5mm nozzles. Cleaning tools and sponge ball dia 19mm.

DMS 374



CLEANING BALL FOR PERISTALTIC PUMP

Essential for thorough cleaning of hose and pipes, these spongy rubber balls have a rough texture and are pumped along flexible hoses with either water or cleaning compounds to remove stubborn dirt which rinsing alone will not remove.

DMS 396 DN 25 13 3/4"

ROUGH GUIDE FOR ESTIMATING ANCILLARY PRODUCTS

MEMBRANE		TAPE 28MM X 22.5M	PLUGS/FIXING
Walls Delta MS 500 Clear - 8mm Stud 2.4m x 20m	Working m ² 46.6 m ²	1 x Roll	3 x Boxes Delta Plugs or Qwik-Seal Plugs Fixed at 600mm Centres (5 plugs per m ²)
Walls Delta MS 500 Clear - 8mm Stud 2m x 20m	Working m ² 38.6 m ²	1 x Roll	2 x Boxes Delta Plugs or Qwik-Seal Plugs Fixed at 600mm Centres (5 plugs per m ²)
Walls Delta - PT Clear/Mesh - 8mm Stud 1.5m x 10m	Working m ² 14 m ²	1 x Roll	1 x Boxes PT Plugs or PT Plugs with Grommets Fixed at 250mm Centres (18 plugs per m ²)
Walls Delta PT Clear/Mesh - 8mm Stud 2m x 20m	Working m ² 36 m ²	1 x Roll	3 x Boxes PT Plugs or PT Plugs with Grommets Fixed at 250mm Centres (18 plugs per m ²)
Floors Delta MS 500 Clear - 8mm Stud 2.4m x 20m	Working m ² 46.6 m ²	1 x Roll	N/A
Floors Delta MS 20 Brown - 20mm Stud 2m x 20m	Working m ² 38 m ²	1 x Roll	N/A
Floors Delta FM Brown - 4mm Stud 2m x 20m	Working m ² 38.6 m ²	1 x Roll	N/A
DualProof Clear/Fleece 1.08m x 20m	Allow for 10% wastage	2 x Rolls	N/A

PER ROLL OF MEMBRANE

ROPE 10MM X 4.75M	CORNER STRIP 150MM X 20M	PROFILE 2M STRIPS	OTHER PRODUCTS
3 x Rolls required for Delta Plugs. Not required for Qwik-Seal Plugs	N/A	N/A	N/A
2 x Rolls required for Delta Plugs. Not required for Qwik-Seal Plugs	N/A	N/A	N/A
3 x Rolls required for PT Plugs. Not required for PT Plugs with Grommets.	N/A	N/A if ventilated via a passive vent externally. Or 9 x strips of vented top & bottom	* On above ground application Delta Mastic can be used instead of Tape for joint. 5 tubes = 1 x Tape
6 x Rolls required for PT Plugs. Not required for PT Plugs with Grommets.	N/A	N/A if ventilated via a passive vent externally. Or 16 x Strips of vented top & bottom	* On above ground application Delta Mastic can be used instead of Tape for joint. 5 tubes = 1 x Tape
Floor/wall Rope Joint Liner Metres = 4.75 - Number of rolls	3 x Rolls	N/A	Floor/Wall joint L.M. ÷ 5 = Number of tubes. Only on sealed system when Delta PT is used on the walls
N/A	** A - used as over seal joint = 1 x Roll	N/A	N/A
N/A	** B - wall to floor junction - 3 x Rolls	N/A	N/A
N/A	N/A	N/A	3 tubes of CEM 805 Adhesive 290ml per roll.



2

SUMP PUMPS & BASEMENT DRAINAGE

One of the main design considerations when designing a waterproofing solution is the collection and discharge of ground and/or foul and/or surface water.

Whether you want a bespoke specialist design or an all-rounder for your basement, explore our innovative and highly effective, Basement Drainage range to find the perfect solution.

SUMP PUMPS

Delta V3 Submersible Pump

Description

The Delta V3 Submersible Pump has been specifically designed for below ground application.

Offering elite performance, the Delta V3 achieves high levels of efficiency thanks to its optimised hydraulic systems and reliable motors.

Fitted with a magnetic float switch the Delta V3 provides variable level control and maximum travel stop.

The powerful vortex pump offers innovative design and advanced technology making it extremely reliable even when subjected to continuous use (subject to correct installation).

A straightforward locking disk enables adaption of the pump to external control systems.

The Delta V3 Submersible Pump is suitable for collecting ground water from a Cavity Drained System.



V3

V4/V6

Features

- Suitable for ground, surface, storm, and grey water applications
- Maximum flow rate up to 2.9 l/s
- 1.25" BSP threaded pump outlet
- Superior vortex hydraulics for blockage free pumping
- Internal thermal protection
- Designed for easy installation
- Available with float locking disc for manual level control

Product details

DMS 116-1



Delta V4 Submersible Pump

Description

The Delta V4 Submersible Pump is light-weight and corrosion-proof due to its high-quality plastic casing. Thanks to its noise-absorbing, abrasion proof and impact-resistant features, the Delta V4 is a popular choice with waterproofing professionals.

The Delta V4 is suitable for double depth basements with a head height of 8 m.

The powerful Vortex pump offers innovative design and advanced technology making it extremely reliable even when subjected to continuous use (subject to correct installation).

The Delta V4 is supplied free standing for quick installation.

Features

- Suitable for ground, surface, storm, and grey water applications
- Maximum flow rate up to 3.3 l/s
- 1.25" BSP threaded pump outlet
- Superior vortex hydraulics for blockage free pumping in critical conditions
- Internal thermal protection
- Designed for easy installation
- Available with float locking disc for manual level control

Product details

DMS 216-1



SUMP PUMPS

Delta V6 Submersible Pump

Description

The Delta V6 Submersible Pump is a reliable heavy-duty pump. The Delta V6 is suitable for double and triple depth basements with a head height up to 12 m.

The Delta V6 Submersible Pump is suitable to collect ground water from a 150 m² basement and surface water from 12 m² of light well area. The Delta V6 Submersible Pump is suitable for pumping of surface water.

The powerful vortex pump offers innovative design and advanced technology making it extremely reliable even when subjected to continuous use (subject to correct installation).

The Delta V6 is supplied free standing for quick installation.

Features

- Suitable for ground, surface, storm, and grey water applications
- Maximum flow rate up to 3.9 l/s
- 1.25" BSP threaded pump outlet
- Superior vortex hydraulics for blockage free pumping in critical conditions
- Internal thermal protection
- Designed for easy installation
- Available with float locking disc for manual level control

Product details

DMS 084-1



Delta Foul V3 Submersible Pump

Description

The Delta Foul V3 Submersible Pump is designed as a compact and cost-effective solution for collection of foul and/or grey water from basements, below ground structures and ground floor extensions.

The robust and reliable Delta Foul V3 is an exceptionally popular choice with waterproofing professionals due to its generous sized motor, thermal overload protection and ease of installation.

The powerful Vortex pump offers innovative design and advanced technology making it extremely reliable even when subjected to continuous use (subject to correct installation). With a 45mm solids clearance the Delta Foul V3 offers reliable and effective discharging.

The Delta Foul V3 can be supplied free standing or on pedestal mounting for permanent installation.

The Delta Foul V3 Submersible pump is not suitable for collecting ground water from a Cavity Drained System.



Features

- Maximum flow rate up to 6.3 l/s
- Maximum head (lift height) 12m
- 2" BSP threaded pump outlet
- Includes float, elbow and outlet reducer adaptors
- Trouble free operation
- Free flowing impeller (preventing clogging)
- Corrosion resistant stainless-steel shaft and bi-rotational mechanical seal
- Designed for easy installation
- Available with pedestal mounting

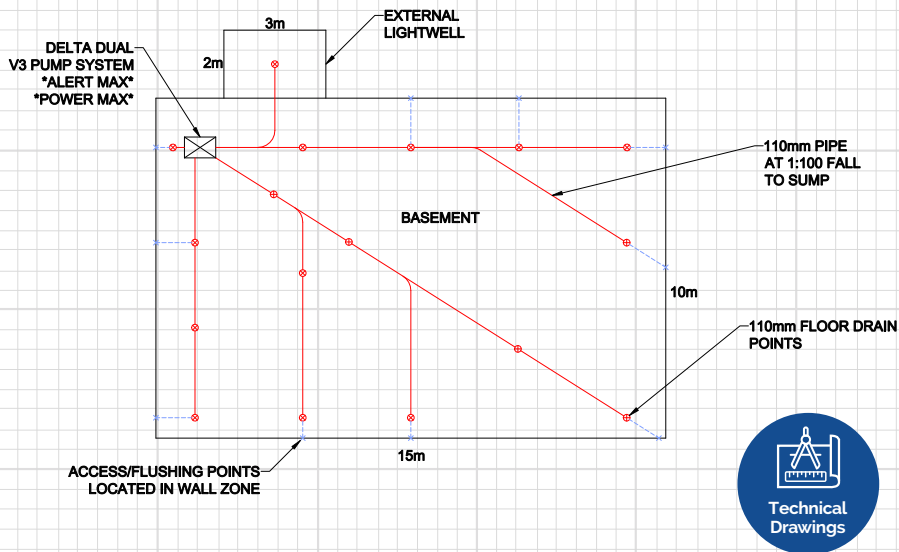
Product details

DMS E029 (Manual)

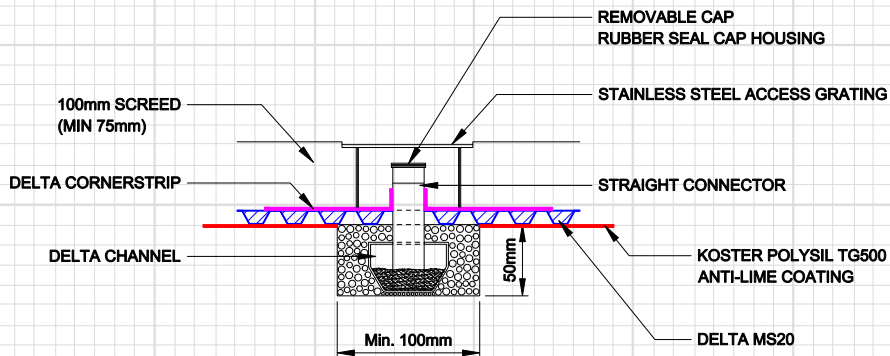
DMS 120-1 (Automatic)



INDICATIVE MODULAR DRAINAGE LAYOUT



MID FLOOR DELTA CHANNEL ACCESS POINT



PACKAGED PUMPING STATIONS

Delta Dual V3 Packaged Pumping Station

Description

Manufactured from superior high-density polyethylene (HDPE), this package pump station can withstand hydrostatic forces encountered in applications with high water tables. Pumping applications are invariably demanding – typically operating in unsympathetic, arduous, or extreme environments, where quality matters.

The powerful vortex pump offers innovative design and advanced technology making it extremely dependable even when subjected to continuous use (subject to correct installation).

The Delta Dual V3 offers unrivalled capabilities. It includes chamber, all internal pipework and two powerful Delta V3 submersible pumps.

The Delta Dual V3 packaged pump station is suitable for collecting ground water from a 150 m² basement and surface water from a maximum 12 m² light well.



Product details

DMS 164-1



Delta Dual V4 Packaged Pumping Station

Description

The Delta Dual V4 packaged pump station has been designed specifically to work in unity with the Delta Cavity Drained System (Type C waterproofing) to collect groundwater via a perimeter channel or modular drainage.

Delta's robust and distinguished package pumps are capable of diverse applications where quality matters. Using advanced pump design techniques our packaged pump systems are unrivalled.

The Delta Dual V4 offers a higher discharge head to the Delta Dual V3 Packaged Pump Station. The Delta Dual V4 pump station is suitable to collect groundwater from a 150m² basement that requires a head height of up to 8 m. The Delta Dual V4 is capable of pumping 12m² of surface area in addition to groundwater.

The Delta Dual V4 includes chamber, all internal pipework and two powerful Delta V4 Submersible Pumps. The Delta Dual V4 should not be used to collect grey water from showers and hand basins, or foul water from a water closet.



Product details

DMS 217-1



Delta Dual V6 Packaged Pumping Station

Description

Manufactured to the highest of quality, the Delta Dual V6 package pump station can meet the requirements of the toughest environment. The Delta Dual V6 has the capabilities to discharge water ingress from surface areas over 150m² or basements that require a head height up to 10 m.

The Delta Dual V6 packaged pump station has been distinctively designed to work in harmony with the Delta Type C System, to collect groundwater via a perimeter drainage channel or modular drainage. Manufactured from high-density polyethylene (HDPE), this package pump station can effortlessly withstand the strongest hydrostatic stress.

The Delta Dual V6 pump station package includes chamber, all internal pipe work and two powerful Delta V6 Submersible Pumps. The system's pumps are factory-set to activate at different levels, providing both primary and secondary protection. The powerful Delta V6 Submersible Pump offers innovative design and advanced technology making it extremely reliable even when subjected to continuous use (subject to correct installation).



Product details

DMS 079-1



Delta V3 Foul Packaged Pumping Station

Description

The Delta Foul V3 Packaged Pumping Station has been specifically designed to collect foul and/or grey water from basements, below ground structures and ground floor extensions.

Superior design, precision manufacturing and high-quality assurance has made Delta a trusted name for package pump stations. The robust and reliable Delta Foul V3 is an exceptionally popular choice with waterproofing professionals due to its generous sized motor, thermal overload protection and ease of installation. The powerful vortex pump offers innovative design and advanced technology making it extremely dependable even when subjected to continuous use (subject to correct installation).

The Delta Foul V3 chamber is manufactured from virgin tank grade HDPE and is capable of withstanding hydrostatic forces encountered in applications with high water tables.

The Delta Foul V3 includes a chamber, all internal pipe-work, and a powerful Delta Foul V3 Submersible Pump.



Product details

DMS 165-2



ALARMS & BATTERY BACKUPS

Delta HLA - Foul

Description

The Delta HLA Foul is designed to detect high water levels within a foul sump pump (submersible pump) chamber. The Delta HLA Foul is an independent high water level alarm with a clear display on the front fascia via LED, which acts as a warning system in the event of:

- power failure to the Delta HLA Foul
- a high water level situation in the chamber/sump
- a high water level situation is recorded
- a service due



Product details

DMS 191-1



Delta HLA - Groundwater

Description

The Delta HLA Groundwater is designed to detect high water levels within a groundwater/surface water sump pump (submersible pump) chamber. The Delta HLA Groundwater is an independent high water level alarm with a clear display on the front fascia via LED, which acts as a warning system in the event of:

- power failure to the Delta HLA Groundwater
- a high water level situation in the chamber/sump
- a high water level situation is recorded
- a service due



Product details

DMS 190-1



Delta HLA - 800 Series

Description

The Delta HLA 800 Series is designed to detect high water levels within a Delta 800 Series sump pump (submersible pump) chamber. The Delta HLA 800 Series is an independent high water level alarm with a clear display on the front fascia via LED, which acts as a warning system in the event of:

- power failure to the Delta HLA 800 Series
- a high water level situation in the chamber/sump
- a high water level situation is recorded
- a service due



Product details

DMS 191-1



Delta UPS V3

Description

If power failure occurs, the Delta UPS V3 automatically powers the Delta V3 pump. It can provide power for 30 minutes continuously, based on a 3.5 m head. This is equivalent to 30 hours protection, in accordance with PCA guidance of a minimum of three activations per hour.

Product details

DMS E021



Delta UPS V4/6

Description

The Delta UPS V4/6 is specifically designed for basement drainage systems (submersible pumps/sump pumps) when there is a loss of mains power. It will power one Delta V3, Delta V4, or Delta V6 Submersible Pump during a power outage, keeping basements dry.

The Delta UPS V4/6 can provide power to a Delta V6 pump for 30 minutes continuously, based on a 3.5 m head. This is equivalent to 30 hours protection, in accordance with PCA guidance of a minimum of three activations per hour.

Product details

DMS E022



Delta Battery Backup Foul V3

Description

The Delta Battery Backup Foul V3 is specifically designed to provide power to one Delta Foul V3 Packaged Pumping Station or a Delta Single Foul 800 Packaged Pumping Station when there is a loss of network power. The Delta Battery Backup Foul V3 will keep submersible pumps running during power outage(s).

The Delta Battery Backup Foul V3 will provide power for more than 3 days* (30 minutes continuously) to one Delta Foul V3 pump in case of a loss of network power. If power failure occurs, the pump automatically takes power from the Delta Battery Backup Foul V3.

Product details

DMS E030



ALARMS & BATTERY BACKUPS

Delta Battery Backup V3

Description

The Delta Battery Backup V3 will provide power for 60 hours* to one or two Delta V3 pumps (not simultaneously) in case of a loss of mains power. If power failure occurs, the pumps(s) automatically take power from the Delta Battery Backup V3. Simple to use and easy to install – the Delta Battery Backup V3 will clearly display status and comprehensive fault codes. *Based on PCA guidance of minimum 3 activations per hour

Product details

DMS E023



Delta Battery Backup V3 Plus

Description

The Delta Battery Backup V3 Plus will provide power for 120 hours* to one or two Delta V3 pumps (not simultaneously) in case of a loss of mains power. If power failure occurs, the pumps(s) automatically take power from the Delta Battery Backup V3 Plus. Simple to use and easy to install – the Delta Battery Backup V3 Plus will clearly display status and comprehensive fault codes. *Based on PCA guidance of minimum 3 activations per hour.

Product details

DMS E024



Delta Battery Backup V3 XL

Description

The Delta Battery Backup V3 XL will provide power for 240 hours* to one or two Delta V3 pumps (not simultaneously) in case of a loss of mains power. If power failure occurs, the pumps(s) automatically take power from the Delta Battery Backup V3 XL. Simple to use and easy to install – the Delta Battery Backup V3 XL will clearly display status and comprehensive fault codes. *Based on PCA guidance of minimum 3 activations per hour.

Product details

DMS E025



Delta Battery Backup V4/6

Description

The Delta Battery Backup V4/6 will provide power for 45 hours* to one or two Delta V6 pumps (not simultaneously) in case of a loss of mains power. If power failure occurs, the pumps(s) automatically take power from the Delta Battery Backup V4/6.

Simple to use and easy to install – the Delta Battery Backup V4/6 will clearly display status and comprehensive fault codes.*Based on PCA guidance of minimum 3 activations per hour.

Product details

DMS E026



Delta Battery Backup V4/6 Plus

Description

The Delta Battery Backup V4/6 Plus will provide power for 90 hours* to one or two Delta V6 pumps (not simultaneously) in case of a loss of mains power. If power failure occurs, the pumps(s) automatically take power from the Delta Battery Backup V4/6 Plus.

Simple to use and easy to install – the Delta Battery Backup V4/6 Plus will clearly display status and comprehensive fault codes.*Based on PCA guidance of minimum 3 activations per hour.

Product details

DMS E027



Delta Battery Backup V4/6 XL

Description

The Delta Battery Backup V4/6 XL will provide power for 140 hours* to one or two Delta V6 pumps (not simultaneously) in case of a loss of mains power. If power failure occurs, the pumps(s) automatically take power from the Delta Battery Backup V4/6 XL.

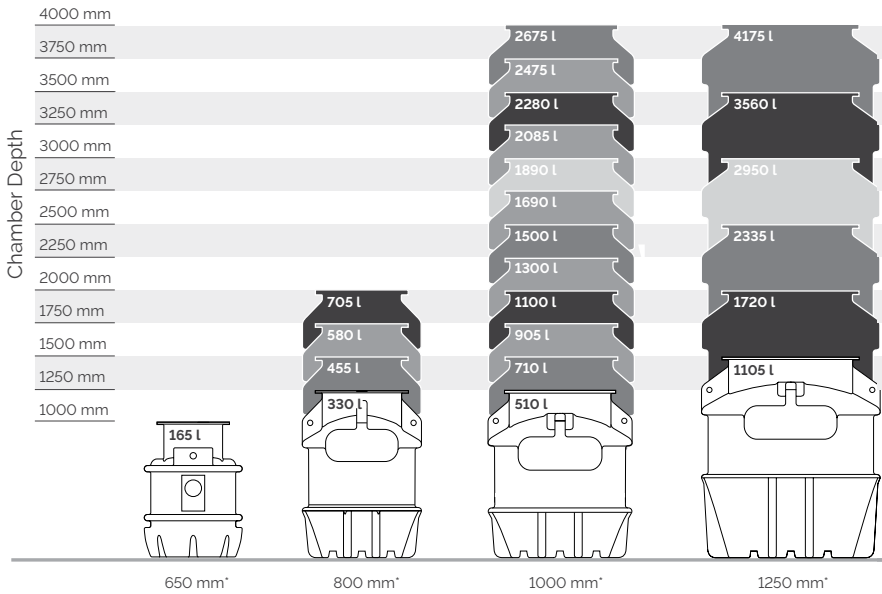
Simple to use and easy to install – the Delta Battery Backup V4/6 XL will clearly display status and comprehensive fault codes.*Based on PCA guidance of minimum 3 activations per hour.

Product details

DMS E028

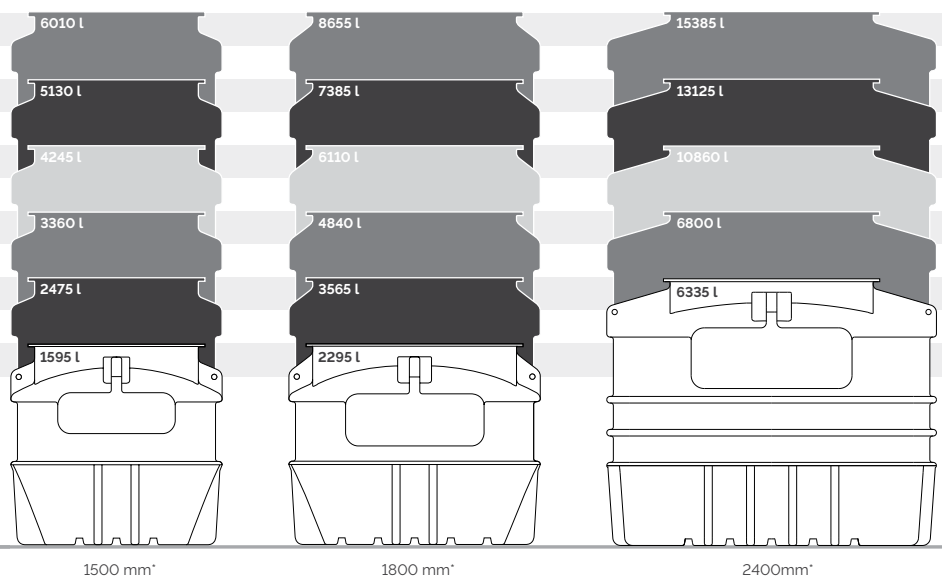


CHAMBER SIZE AND STORAGE CAPACITY



*Chamber diameter (add 100mm for total external diameter).

Capacities shown are for highest possible inlet invert. Please contact us for fabrication sheets detailing chamber dimensions and capacities for varying inlet depths.



DELTA BESPOKE 800 SERIES GROUNDWATER



Description

The Delta Bespoke 800 Series of Packaged Pumping Stations are available in depths from 1250mm to 2000mm and with varying pumping capabilities from the Delta Dual V3 to powerful Delta Dual V6 pump.

The robust and reliable Delta Bespoke 800 Series Packaged Pumping Station has been specifically designed to collect ground and surface water from basements, below ground structures.

Typical applications include (but are not limited to) Type C, Cavity Drained Waterproofing solutions and/or surface water from roofs, buried roofs, terraces and patios (subject to selection criteria).

Delta Bespoke 800 Series – system includes: a polyethylene chamber, 1¼" PVC internal pipework, two Delta V3, V4 or V6 sump pumps, 110mm inlet, 50mm cable duct, 110mm vent and 2" discharge.

This product is specifically designed for below ground applications where hydrostatic water pressure may be present. We recommend surrounding the Delta Bespoke 800 Series with concrete to prevent movement. An access cover is not supplied, as these are generally site specific and installed in the final finish. If required, the chamber will accept a standard 450mm x 600mm cover and frame. Inlets can easily be drilled and sealed on site, making this product straightforward to install.

The Delta Bespoke 800 Series - Groundwater is not suitable for collecting foul or grey water.

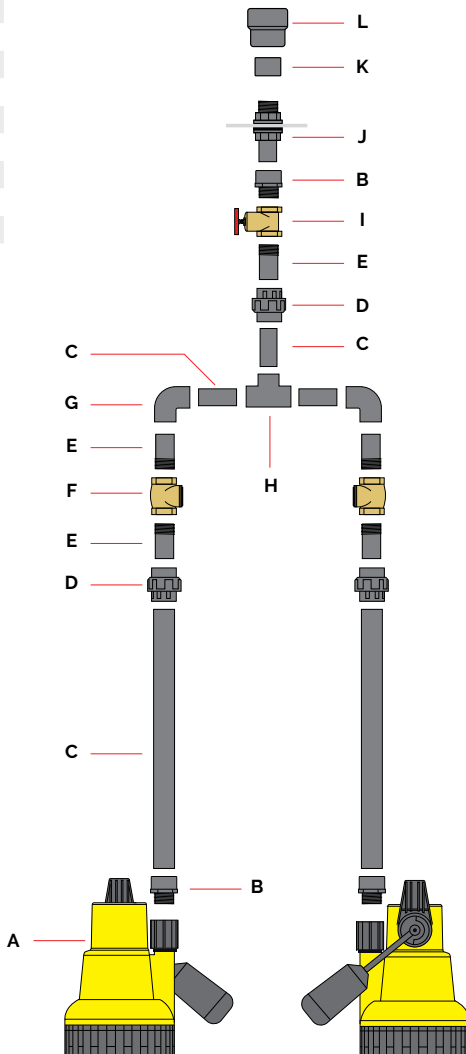
Features

- Suitable for ground, surface, storm, and grey water applications
- Available from stock
- Wide selection of pumps, options and accessories
- Unrivalled quality
- Large chamber, manufactured from superior polyethylene to withstand hydrostatic forces encountered in applications with high water tables
- Quick and simple installation
- Suitable for residential, commercial, health care/ learning institution and heritage projects

Specification

- NBS Specification R18 (Clause 310) Pumping Stations and Pressure Pipelines
- BS 8102:2022 Type C Drained Protection

Part	Description	DMS Code
A	Delta V3/V4/V6 Submersible Pump, inc.: - float switch assembly (DMS E-192) - non-return valve (DMS E-195)	DMS 116-1 (V3) DMS 216-1 (V4) DMS 084-1 (V6)
B	Male threaded adaptor, 1.25"	DMS E104
C	High pressure PVC pipe (Class E), 1.25"	DMS E100
D	Socket union, 1.25" c/w 'O' ring	DMS E106
E	Barrel nipple PL/TH, 1.25"	DMS E108
F	Brass swing check valve, 1.25"	DMS E191
G	90° elbow, 1.25"	DMS E101
H	Tee-piece, 1.25"	DMS E105
I	Brass gate valve, 1.25"	DMS E187
J	Tank connector, 1.25"	DMS E110
K	Reducing bush, PL/TH, 1½" to 1¼"	DMS E161
L	Reducer, PL/PL, 2" to 1½"	DMS E160



Associated products

- Battery backup systems
- High-level alarms
- Remote monitoring
- External pipework
- Pumps
- Access covers
- Additional inlets

Product Details

Delta Dual V3

- 800-1250 Pump Station DMS-E001
- 800-1500 Pump Station DMS-E002
- 800-1750 Pump Station DMS-E003
- 800-2000 Pump Station DMS-E004

Delta Dual V4

- 800-1250 Pump Station DMS-E005
- 800-1500 Pump Station DMS-E006
- 800-1750 Pump Station DMS-E007
- 800-2000 Pump Station DMS-E008

Delta Dual V6

- 800-1250 Pump Station DMS-E009
- 800-1500 Pump Station DMS-E010
- 800-1750 Pump Station DMS-E011
- 800-2000 Pump Station DMS-E012



DELTA BESPOKE 800 SERIES FOUL



Description

The Delta Bespoke 800 Series of Package Pumping Stations are available in depths from 1250mm to 2000mm. The robust and reliable Delta Bespoke 800 Series - Foul Packaged Pump Station has been specifically designed to collect foul and/or grey water from basements, below ground structures and ground floor extensions or where foul water cannot be drained by gravity.

For kitchen applications we recommend fitting a grease trap prior to the pump station installation.

This product is specifically designed for below ground applications where hydrostatic water pressure may be present. However, we recommend surrounding the Delta Bespoke 800 Series - Foul with concrete to prevent movement. A manhole cover is not supplied as these are generally site specific and installed in the final finish.

The Delta 800 Series Foul Packaged Pumping Station can be installed at the initial building stage or retro fitting to existing buildings.

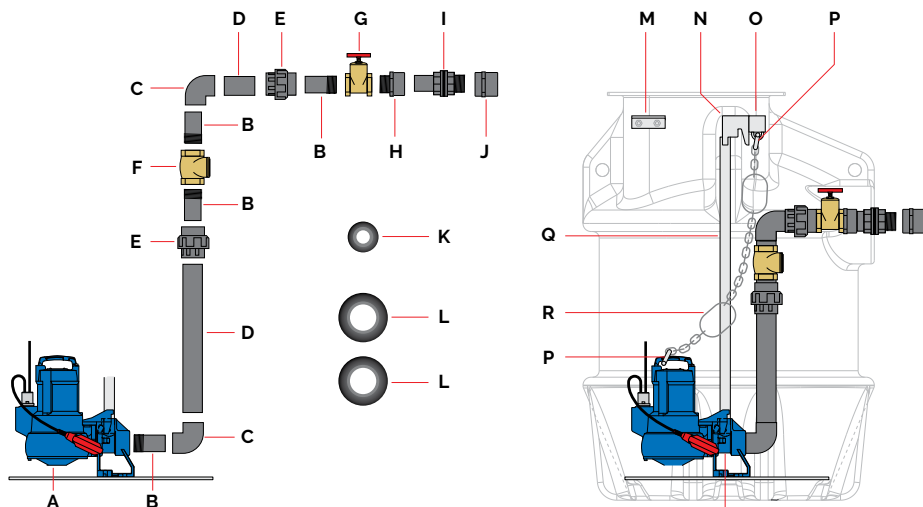
The Delta Bespoke 800 Series - V3 Foul is not suitable for collecting ground water from a cavity drained membrane system.

Features

- Suitable for foul/grey water applications
- Available from stock
- Large chamber, manufactured from superior polyethylene enabling the Delta 800 Series to withstand hydrostatic forces encountered in applications with high water tables
- Quick and simple installation
- For kitchen applications, we recommend fitting a grease trap prior to the pump station
- Wide selection of pumps, options and accessories
- Unrivalled quality
- Suitable for residential, commercial, health care/ learning institution and heritage projects

Specification

- NBS Specification R18 (Clause 310) Pumping Stations and Pressure Pipelines
- BS EN 12050-3:2015 Wastewater lifting plants for buildings and sites. Lifting plants for limited applications
- BS 8102:2022 Type C Drained Protection



Part	Description	DMS Code
A	Delta Foul V3 (Automatic)	DMS 120-1
B	Barrel nipple PL/TH, 2'	DMS E128
C	90° elbow, 2"	DMS E121
D	High pressure PVC pipe (Class E), 2"	DMS E120
E	Socket union, 2' c/w O' ring	DMS E126
F	Brass swing check valve, 2"	DMS E193
G	Brass gate valve, 2"	DMS E188
H	Male threaded adaptor, 2"	DMS E124
I	Tank connector, 2'	DMS E130
J	Coupling PL/TH, 2'	DMS E127

Part	Description	DMS Code
K	Rubber wall seal, 50 mm (cable duct, 50 mm inlets)	DMS E168
L	Rubber wall seal, 110 mm (vent duct, 110 inlets)	DMS E169
M	2-hole sump float bracket, steel	DMS E234
N	Guide rail top bracket	-
O	Unistrut kit c/w bracket	-
P	Galvanised steel shackle, 8 mm	-
Q	Guide rail tube, galvanised steel, 25 mm	-
R	Galvanised steel lifting chain	-
S	Pedestal for foul V3 Submersible Pump	DMS E163

Product Details

Delta Single V3 Foul
 800-1250 Pump Station DMS E013
 800-1500 Pump Station DMS E014
 800-1750 Pump Station DMS E015
 800-2000 Pump Station DMS E016

Delta Dual V3 Foul (inc control panel)
 800-1250 Pump Station DMS E017
 800-1500 Pump Station DMS E018
 800-1750 Pump Station DMS E019
 800-2000 Pump Station DMS E020

Associated products

- Battery backup systems
- High-level alarms
- Remote monitoring
- External pipework
- Pumps
- Access covers
- Additional inlets



DELTA PLUTO PACKAGE PUMPING STATION

Description

The Delta Pluto Packaged Pumping Station is available in association with TT Pumps and has been specifically designed to work in harmony with Cavity Drained Systems to collect Groundwater via a perimeter drainage channel or modular drainage.

This package pump station can withstand hydrostatic forces encountered in applications with high water tables. Pumping applications are invariably demanding – typically operating in unsympathetic, arduous, or extreme environments, where quality matters.

The powerful Delta Goliath/Delta Blue 50 (foul water) pump offers innovative design and advanced technology making it extremely dependable even when subjected to continuous use (subject to correct installation).

The Delta Pluto Packaged Pumping Station sump offers versatility of collecting water from external light-wells. The Delta Pluto packaged pump station includes chamber, all internal pipe work, valves and pumps. The Delta Pluto Packaged Pumping Station is suitable for collecting ground water from a 150m² basement and surface water from a maximum 12m² light well.

The extension turret is an innovative design that allows the installer to change the depth of the chamber installation to suit site specific levels. Due to possibility of site complications and changing requirements, it would be useful to be able to extend the depth of the tank. The extension turret is placed on top of the tank and clamped and sealed in place and can be cut at set increments to adjust the height of the pumping station chamber. The focus on this is to aid in reducing of installation time and to provide product flexibility in site conditions.

The Delta Pluto (150, 400, 550) Packaged Pumping Stations are not suitable for collecting foul water, for foul water applications the Delta Blue 50 should be specified.

Specification

- BS 8102:2022 Protection of below ground structures against water ingress. Code of Practice
- NBS Specification R18 (Clause 310) Pumping Stations and Pressure Pipelines



Features

- BBA Approval and Accreditation
- Suitable for ground, surface, storm, and grey water applications
- Flow rate up to 7.5 l/s at up to 11m head
- Chamber manufactured from superior virgin tank grade HDPE enabling the Delta Pluto Packaged Pumping Station to withstand hydrostatic forces encountered in applications with high water tables
- Quick and simple installation
- 156 litre operating storage
- Supplied with Delta Goliath / Foul Blue 50 powerful Delta Pluto Pumps
- Suitable for residential, commercial and heritage projects

Product Details

Delta Dual Pluto	
150 including TT HLA Duty	DMS T001
400 including TT HLA Duty	DMS T002
550 including TT HLA Duty	DMS T003
Delta Pluto Dual Foul Blue 50 (including TT HLA Duty)	DMS T004
Delta Pluto Extension Turret (inc clamping kit and seal)	DMS T009



Delta Pluto with turret



DELTA BESPOKE MERCURY FOUL

Description

The Delta 1000 Series - Mercury Foul Packaged Pumping Station is available in association with TT Pumps. The robust and reliable Delta 1000 Series - Mercury Series Packaged Pumping Station has been specifically designed and manufactured in the United Kingdom to provide an efficient and economical way of installing a sewage/drainage pumping station.

The extension turret is an innovative design that allows the installer to change the depth of the chamber installation to suit site specific levels. Due to possibility of site complications and changing requirements, it would be useful to be able to extend the depth of the tank. The extension turret is placed on top of the tank and clamped and sealed in place and can be cut at set increments to adjust the height of the pumping station chamber. The focus on this is to aid in reducing of installation time and to provide product flexibility in site conditions.

The Delta 1000 Series - Mercury Foul Package Pumping Station, is not suitable for collecting ground water from a cavity drained membrane system.



Features

- BBA Approval and Accreditation
- Pump chambers are well engineered and manufactured, and have passed rigorous and detailed testing, site inspections and factory production control assessment
- Each pump chamber is made of strong, medium-density polyethylene
- Smooth internal walls aid the hygienic disposal of effluents, to avoid smells and septicity.
- Comes complete with pipework pre-assembled in the chamber, ready for installation into the ground, after which the pumps and control equipment are added.
- All packaged pumping stations are supplied with controls for fully automatic operation, and a high-level alarm indicator
- Units can be adapted to suit individual requirements at manufacturing stage
- Packages are available on short lead-times to fit in with tight construction schedules.

Specification

- BS 8102:2022 Protection of below ground structures against water ingress. Code of Practice
- BS EN 10256-4:2000 Gravity drainage systems inside buildings - Wastewater lifting plants
- Construction (Design & Management) Regulations 2015
- Construction (Design & Management) Regulations (Northern Ireland) 2016

Product details

Mercury DGO 50	DMS T005
Mercury DGO 75	DMS T006
Mercury DGO 100	DMS T007
Mercury DGO 150	DMS T008
Extension Turret	DMS T010



Delta Mercury Foul with turret



DRAINAGE CHANNELS & ACCESSORIES



DELTA CHANNEL WITH UPSTAND

Delta Perimeter Drainage Channel is a component part used within a Type C Cavity Drainage System. Delta Channel is a distinctive yellow, PVC drainage conduit designed to manage water ingress and hydrostatic water pressure in basements and below ground structures. Channel with upstand keeps the channel stable when abutting the Delta membrane on a perimeter wall.

DMS 207

Length 2m



DELTA CHANNEL WITHOUT UPSTAND

Delta Perimeter Drainage Channel is a component part used within a Type C Cavity Drainage System. Delta Channel is a distinctive yellow, PVC drainage conduit designed to manage water ingress and hydrostatic water pressure in basements and below ground structures. Channel without upstand is used where cross channels sit over construction joints in the middle of the floor, when Delta Channel is to be offset from the wall or to join two perimeter channels together across a floor.

DMS 208

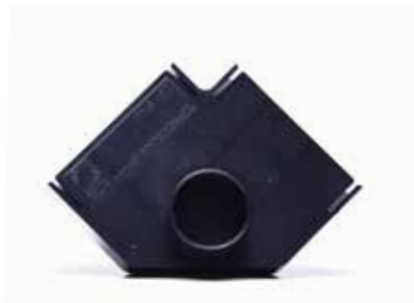
Length 2m



STRAIGHT CONNECTORS

Straight connectors for connecting Delta channel (with or without upstand). Also known as Delta "in line". The range of Delta drainage channel ancillary components make installation more efficient and quicker.

DMS 310



CORNER PIECES

Delta "90 degree" Corner Connector with "Push Out" feature for inspection port. Can be used to join lengths of Delta channel on both internal and external corner sections.

DMS 182



T PIECES

T Pieces, also known as "Tee Connectors", facilitates crossing 3 channels together to dissect the floor or to discharge to a centrally located sump pump. The T Pieces include a "Push Out" feature for inspection port to service the system.

DMS 183



END CAPS

End Caps have a dual role and can work as either a blanking plate (at the far end of a channel run) or can be converted easily (with their "Push Out" feature) for easy fit of drainage pipe outlet (connector) to join with the sump pump station.

DMS 184



110MM DRAINAGE OUTLET

110mm Drainage Outlet is designed to join the channel to 110mm standard underground pipe. The 110mm Drainage Outlet consists of a 90° PVC bend and a PVC male coupling which is fitted to the base of Delta Channel to allow water to travel from the conduit to the water collection point (sump pump). The 110mm Drainage Outlet can also accept an inspection port and has the ability cross floor channels.

DMS 128

DRAINAGE CHANNELS & ACCESSORIES



MS 20 FLUSHING / ACCESS PORT

The MS20 access port enables the 20mm cavity to be inspected and flushed through should the need arise, thus making the whole cavity drain system maintainable and further reducing the risks in the long term.

DMS 124



INSPECTION PORT (JETTING EYE)

Inspection Ports are designed for use with perimeter drainage channel (with or without upstand DMS 207/DMS 208). Inspection ports allow for maintenance and future cleaning/flushing of the drainage system (with a suitable anti-lime solution (if required)).

DMS 094



ACCESS PORT UNIT

Preformed unit of Delta perimeter drainage channel with inspection port. Used to provide cleaning, inspection, and maintenance access to the Delta drainage channel system.

DMS 117

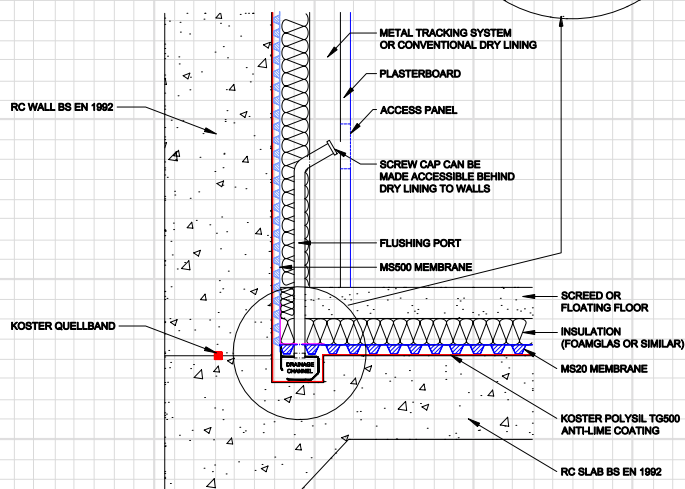
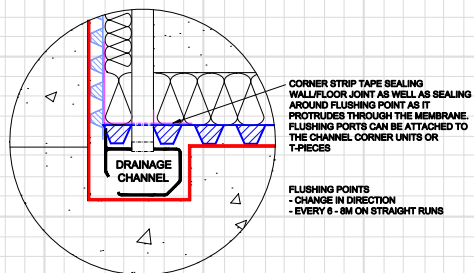
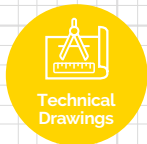


DRAINAGE CONNECTOR

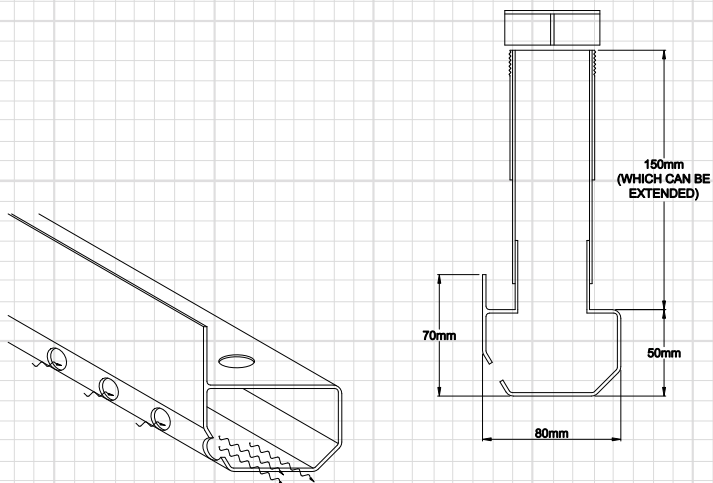
Drainage Connector (outlet) is used for connection underneath/underside of Delta perimeter drainage channel, ideal for continuous waterproofing at level changes. Connects to 40mm pipe enabling drainage channel connection from below.

DMS 118

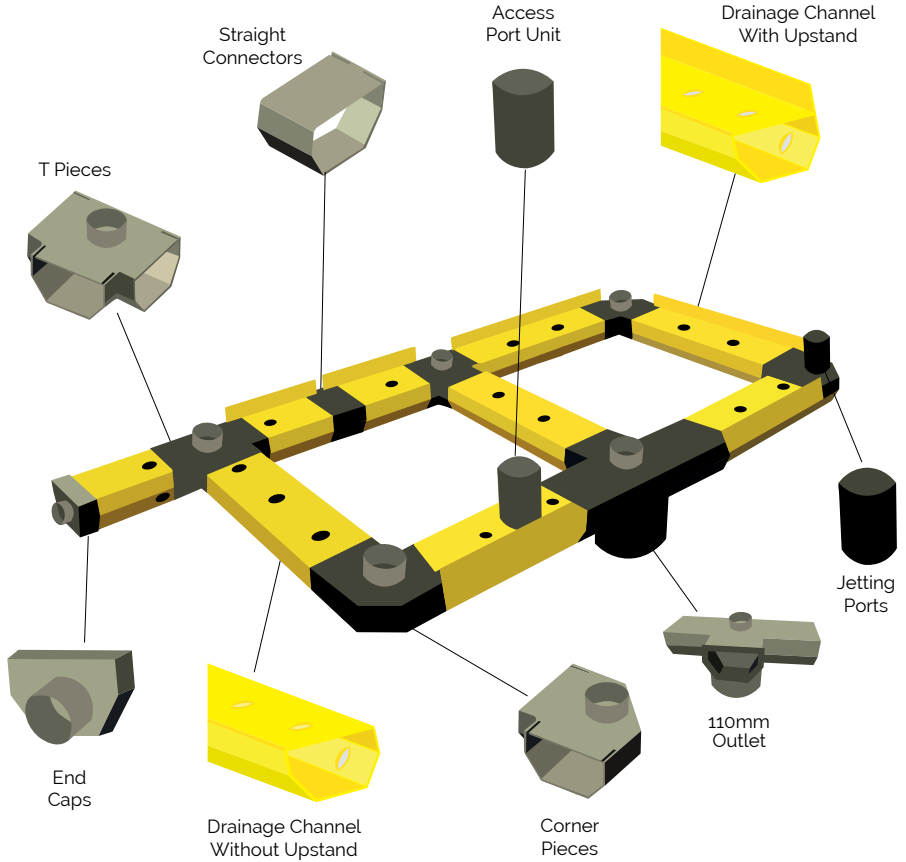
FLUSHING PORT ACCESS PANEL



DRAINAGE CHANNEL & FLUSHING PORT DETAIL



DRAINAGE CONFIGURATION



STRAIGHT CONNECTORS

Straight connectors for connecting Delta channel (with or without upstand). Also known as Delta "in line". The range of Delta drainage channel ancillary components make installation more efficient and quicker.

DMS 310

T PIECES

T Pieces, also known as "Tee Connectors", facilitates crossing 3 channels together to dissect the floor or to discharge to a centrally located sump pump. The T Pieces include a "Push Out" feature for inspection port, to service the system.

DMS 183

END CAPS

End Caps have a dual role and can work as either a blanking plate (at the far end of a channel run) or can be converted easily (with their "Push Out" feature) for easy fit of drainage pipe outlet (connector) to join with the sump pump station.

DMS 184

DRAINAGE CHANNEL WITHOUT UPSTAND

Delta Perimeter Drainage Channel is a component part used within a Type C Cavity Drainage System. Delta Channel is a distinctive yellow, PVC drainage conduit designed to manage water ingress and hydrostatic water pressure in basements and below ground structures. Channel without upstand is used where cross channels sit over construction joints in the middle of the floor, when Delta Channel is to be offset from the wall or to join two perimeter channels together across a floor.

DMS 208

DRAINAGE CHANNEL WITH UPSTAND

Delta Perimeter Drainage Channel is a component part used within a Type C Cavity Drainage System. Delta Channel is a distinctive yellow, PVC drainage conduit designed to manage water ingress and hydrostatic water pressure in basements and below ground structures. Channel with upstand keeps the channel stable when abutting the Delta membrane on a perimeter wall.

DMS 207

CORNER PIECES

Delta "90 degree" Corner Connector with "Push Out" feature for inspection port. Can be used to join lengths of Delta channels on both internal and external corner sections.

DMS 182

INSPECTION PORT (JETTING EYES)

Inspection Ports are designed for use with perimeter drainage channel (with or without upstand DMS 207/ DMS 208). Inspection ports allow for maintenance and future cleaning/flushing of the drainage system (with a suitable anti-lime solution (if required)).

DMS 094

110MM DRAINAGE OUTLET

110mm Drainage Outlet is designed to join the channel to 110mm standard underground pipe. The 110mm Drainage Outlet consists of a 90° PVC bend and a PVC male coupling which is fitted to the base of Delta Channel to allow water to travel from the conduit to the water collection point (sump pump). The 110mm Drainage Outlet can also accept an inspection port and has the ability cross floor channels.

DMS 128

DRAINAGE CONNECTOR

Drainage Connector (outlet) is used for connection underneath/underside of Delta perimeter drainage channel, ideal for continuous waterproofing at level changes. Connects to 40mm pipe enabling drainage channel connection from below.

DMS 118

DRAINAGE CHANNELS & ACCESSORIES

1¼" pipework and fittings

DMS	Product	Qty
E100	1¼" pressure pipe, PVC Class E (2 m)	<input type="text"/>
E110	PVC, tank connector, 1¼"	<input type="text"/>
E101	PVC, 90 degree elbow PL/PL, 1¼"	<input type="text"/>
E102	PVC, 45 degree elbow PL/PL, 1¼"	<input type="text"/>
E105	PVC, tee-piece PL/PL, 1¼"	<input type="text"/>
E103	PVC, coupling (socket) PL/PL, 1¼"	<input type="text"/>
E106	PVC, socket union PL/PL, 1¼"	<input type="text"/>
E104	PVC, male threaded adaptor, 1¼"	<input type="text"/>
E107	PVC, coupling PL/TH, 1¼"	<input type="text"/>
E108	PVC, barrel nipple PL/TH, 1¼"	<input type="text"/>
E109	PVC, barrel nipple TH/TH 1¼"	<input type="text"/>
E111	PVC, coupling TH/TH female 1¼"	<input type="text"/>
E112	32 mm male iron, low pressure	<input type="text"/>
E114	1¼" O-ring for socket union, EPDM	<input type="text"/>
E113	PP saddle clamp, 110 mm x 1¼" BSP	<input type="text"/>
E201	PP, industrial pipe clip, black, 1¼"	<input type="text"/>

2" pipework and fittings

DMS	Product	Qty
E120	2" Pressure Pipe PVC Class E (2 m)	<input type="text"/>
E130	PVC, tank connector, 2"	<input type="text"/>
E121	PVC, 90 degree elbow PL/PL, 2"	<input type="text"/>
E122	PVC, 45 degree elbow PL/PL, 2"	<input type="text"/>
E125	PVC, tee-piece PL/PL, 2"	<input type="text"/>
E123	PVC, coupling (socket) PL/PL, 2"	<input type="text"/>
E126	PVC, socket union PL/PL, 2"	<input type="text"/>
E124	PVC, male threaded adaptor, 2"	<input type="text"/>
E127	PVC, coupling PL/TH, 2"	<input type="text"/>
E128	PVC, barrel nipple PL/TH, 2"	<input type="text"/>
E129	PVC, barrel nipple TH/TH, 2"	<input type="text"/>
E131	PVC, coupling (socket) TH/TH, 2"	<input type="text"/>
E132	50mm male iron, low pressure, white	<input type="text"/>
E134	2" BSP backnut, white c/w washer	<input type="text"/>
E135	2" O-ring for socket union, EPDM	<input type="text"/>
E133	PP saddle clamp, 110 mm x 2" BSP	<input type="text"/>
E202	PP, industrial pipe clip, black, 2"	<input type="text"/>

1¼" to 2" reducer kit

DMS	Product	Qty
E219	Delta 2" to 1¼" Reducer Kit	<input type="text"/>
E160	PVC, 2"-1½" reducing socket, PL/PL	<input type="text"/>
E161	PVC, 1½"-1¼" reducing bush, PL/TH	<input type="text"/>

2½" pipework and fittings

DMS	Product	Qty
E140	2½" pressure pipe PVC Class E (2 m)	<input type="text"/>
E145	PVC, tank connector, 2½"	<input type="text"/>
E144	PVC, male threaded adaptor, 2½"	<input type="text"/>
E142	PVC, 45 degree elbow PL/PL, 2½"	<input type="text"/>
E141	PVC, 90 degree elbow PL/PL, 2½"	<input type="text"/>
E143	PVC, coupling (socket) PL/PL, 2½"	<input type="text"/>
E146	PP saddle clamp 110 mm x 2½" BSP	<input type="text"/>

3" pipework and fittings














DMS	Product	Qty
E150	3" pressure pipe PVC Class E (2 m)	<input type="text"/>
E155	PVC, tank connector, 3"	<input type="text"/>
E154	PVC, male threaded adaptor, 3"	<input type="text"/>
E152	PVC, 45 degree elbow PL/PL, 3"	<input type="text"/>
E151	PVC, 90 degree elbow PL/PL, 3"	<input type="text"/>
E153	PVC, coupling (socket) PL/PL, 3"	<input type="text"/>
E156	PP saddle clamp 110 mm x 3" BSP	<input type="text"/>

Miscellaneous

DMS	Product	Qty
E175	Solvent cement, WDF-05, 250 ml	<input type="text"/>
E176	PVC cleaning fluid, 500 ml, tin	<input type="text"/>
E177	PTFE tape, roll	<input type="text"/>

Company name	<input type="text"/>
Contact name	<input type="text"/>
Telephone	<input type="text"/>
Email	<input type="text"/>
PO #	<input type="text"/>
Date	<input type="text"/>
OFFICE ONLY	
Net £	<input type="text"/>
Approved by	<input type="text"/>

	Pressure pipe, PVC Class E, 2 m	1/4"	2"	2 1/2"	3"
		E100	E120	E140	E150
	Tank connector	1/4"	2"	2 1/2"	3"
		E110	E130	E145	E155
	90° elbow PL/PL	1/4"	2"	2 1/2"	3"
		E101	E121	E141	E151
	45° elbow PL/PL	1/4"	2"	2 1/2"	3"
		E102	E122	E142	E152
	Tee-piece PL/PL	1/4"	2"	2 1/2"	3"
		E105	E125	-	-
	Coupling (socket) PL/PL	1/4"	2"	2 1/2"	3"
		E103	E123	E143	E153
	Socket union PL/PL	1/4"	2"	2 1/2"	3"
		E106	E126	-	-
	Male threaded adaptor	1/4"	2"	2 1/2"	3"
		E104	E124	E144	E154
	Coupling PL/TH	1/4"	2"	2 1/2"	3"
		E107	E127	-	-
	Barrel nipple PL/TH	1/4"	2"	2 1/2"	3"
		E108	E128	-	-
	Barrel nipple TH/TH	1/4"	2"	2 1/2"	3"
		E109	E129	-	-
	Coupling TH/TH	1/4"	2"	2 1/2"	3"
		E111	E133	-	-
	Delta 2" to 1/4" Reducer Kit	2"	to 1/4"		
		E219			
	Reducing socket, PL/PL	2"	to 1/4"		
		E160			

	Reducing bush, PL/TH	1 1/2" to 1/4"
		E161
	Male iron, low pressure	1 1/4"/32 mm 2"/50 mm
		E112 E132
	Backnut, ABS c/w rubber washer	2" BSP
		E134
	O-ring for socket union	1/4" 2"
		E114 E135
	110mm saddle clamp, reinforced	1/4" 2" 2 1/2" 3"
		E113 E133 E146 E156
	Rubber drain coupling	50-65 mm
		E174
	Rubber wall seal	50 mm 110 mm 160 mm
		E168 E169 E170
	Brass gate valve	1/4" 2"
		E187 E188
	Brass swing check valve	1/4" 2"
		E191 E193
	Delta V3/4/6 non-return valve	1/4"
		E195
	PP, industrial pipe clip, black	1/4" 2"
		E201 E202
	Solvent cement, WDF-05	250 ml
		E175
	PVC cleaning fluid	500 ml
		E176
	PTFE tape, roll	12mm x 12m
		E177

3

GROUND GAS PROTECTION

Gas protection systems are critical in projects constructed on land affected by permanent ground gas and/or volatile organic compound (VOC) contamination.

Delta Membrane Systems Limited supplies a comprehensive range of gas barrier membranes and ventilation systems designed to protect against permanent ground gases and VOCs.



PRO R1

Pro R1 is a flexible, loose laid propriety gas barrier for use on sites with Radon (RN) ground gas.

- Three-layer, low density polyethylene
- BRE 211:2015 Radon
- Will protect against damp in accordance with CP: 102:1973, Section 2 and BS 8000-4:1989
- Can be tape jointed or heat welded

DMS 401

2m x 50m



PRO M1

Pro M1 is a flexible, loose laid ground gas barrier membrane made from low-density polythene with polypropylene reinforcement grid and aluminium foil core layer.

- For use on sites with Radon, Carbon Dioxide and Methane
- Gas and damp proof membrane
- BS 8485:2015+A1:2019 Table 7 Compliant
- Can be tape jointed or heat welded

DMS 402

2m x 50m

GROUND GAS BARRIERS



PRO TITAN VOC

PRO Titan VOC complies with the latest codes of practice as published by BRE, CIRIA (748) and BS 8485:2015+A1:2019. PRO Titan is suitable for use as ground gas/hydrocarbon protection for NHBC Green, Amber1, Amber2 and Red sites.

- VOC/Hydrocarbon/Methane/CO₂ & Radon Barrier
- Suitable for new build & refurbishment projects
- High resistance to puncturing
- Multi-layered unique core component

DMS 403

2m x 50m



PRO LIQUID GAS BARRIER

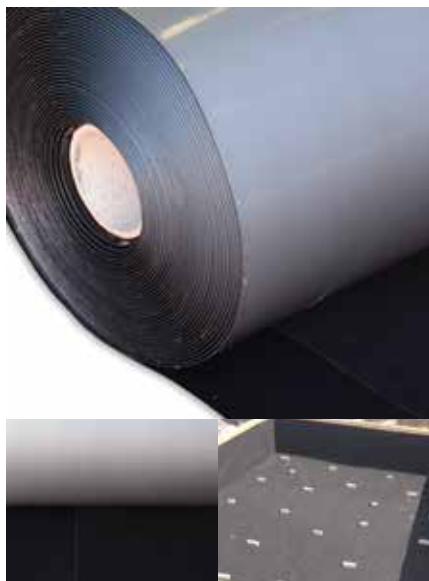
Pro LGB is a ready to use specialist styrene butadiene latex-based liquid applied gas membrane. Simple, continuous passive gas prevention barrier against the ingress of Methane, Carbon Dioxide, Radon, Ground Gas, VOC, air & moisture into buildings.

- Liquid applied by brush, roller, or airless spray
- Can be used for providing damp proofing, gas proofing or waterproofing
- Suitable for new build & refurbishment projects
- Suitable for Hydrocarbons, Methane (CH₄), Carbon Dioxide (CO₂), Radon (Rn), Volatile Organic Compound (VOCs)

DMS 405

15kg

GROUND GAS BARRIERS



PRO TITAN BOND

Pro Titan Bond hydrocarbon barrier offers a safe solution for the protection of occupiers against all levels of Hydrocarbon, Methane, Carbon Dioxide and Radon gas ingress. Complies with the latest codes of practice as published by BRE, CIRIA (748) and BS 8485:2015+A1:2019 and BS 8102:2022.

- Suitable for use as ground gas/hydrocarbon protection for NHBC Green, Amber1, Amber2 and Red sites
- Ground Gas protection and waterproofing in one product
- Bonds fully with concrete

DMS 437

1.9m x 25m



PRO TITAN TANK

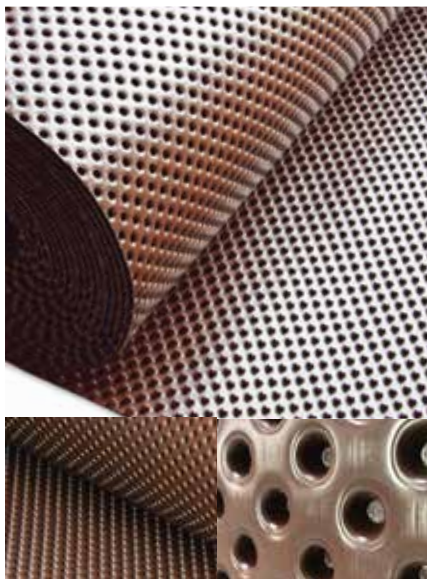
Pro Titan Tank is a post applied waterproof and ground gas membrane offering a safe solution for the protection of buildings, structures, and occupiers against all levels of Hydrocarbon, VOCs, Methane, Carbon Dioxide and Radon gas ingress.

- Suitable for new build basements, tunnels, and concrete structures below ground
- Exceptional chemical resistance
- High resistance to puncturing
- Can be used for providing damp proofing, gas proofing or waterproofing

DMS 438

0.9m x 20m

GROUND GAS BARRIERS



DELTA AT 800

Delta AT 800 is an innovative Type C Drainage Membrane which conforms to BS 8102:2022 and BS 8485:2015+A1:2019, Table 7 achieving waterproofing and ground gas protection simultaneously.

- Compatible with all types of construction
- Suitable for high volumes of water penetration
- Reversible system
- Durable for 100 years in natural soil with $4 \leq \text{pH} \leq 9$ and soil temperature $\leq 25^\circ\text{C}$

DMS 026

2m x 20m



DELTA LM 800

Delta LM 800 is an innovative liquid membrane which conforms to BS 8102:2022 and BS 8485:2015+A1:2019, Table 7 achieving damp proofing, waterproofing and ground gas protection simultaneously.

Delta LM 800 is robust and flexible liquid membrane which performs excellent under high compressive loads and offers maximum protection in just one application.

- Multiple physical properties, including resistance to Methane, Carbon Dioxide and Radon
- Ideal for complex detailing and difficult to reach areas
- Fully bonded system - continuous application - no sealing required at construction joints/laps
- Can be applied to damp surfaces or newly poured concrete

DMS 035

10kg

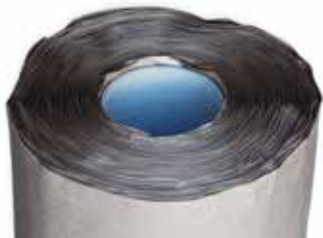


PRO TITAN TAPE

A highly flexible, double sided butyl tape. Pro Titan Tape is designed with a layer of release film on both sides to assist during installation. This multipurpose tape prevents water, water vapor, air and gas when used in conjunction with gas barriers, vapor control layers and damp proof membranes. The tapes flexibility enables installation on irregular surfaces accurately with little to no waste. Pro Titan Tape can adhere to all our gas barriers and an extensive variety of substrates.

DMS 439

100mm X 15m



DETAILING STRIP

Detailing Strip is a superior 300mm wide, self-adhesive gas membrane designed specifically to aid detailing and sealing around pipe penetrations and internal and external corners. Detailing Strip can also be used for repairing tears and other damage to ground gas membranes.

DMS 413

300mm X 20m



GAS TAPE 50

Gas Tape 50 is a specialist butyl double sided sealing tape. This strong and durable tape is ideal for sealing between overlapping sheets of gas membrane.

DMS 411

50mm X 10m

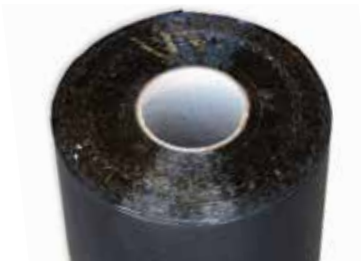


GAS OVER TAPE 150

Gas Over Tape 150 is a durable butyl single sided tape. Gas Over Tape is designed with an aluminium foil backing. This unique foil provides a secondary seal to gas membrane joints and for detailing around service penetrations.

DMS 412

150mm X 30m



PRO TITAN EXTERNAL TAPE

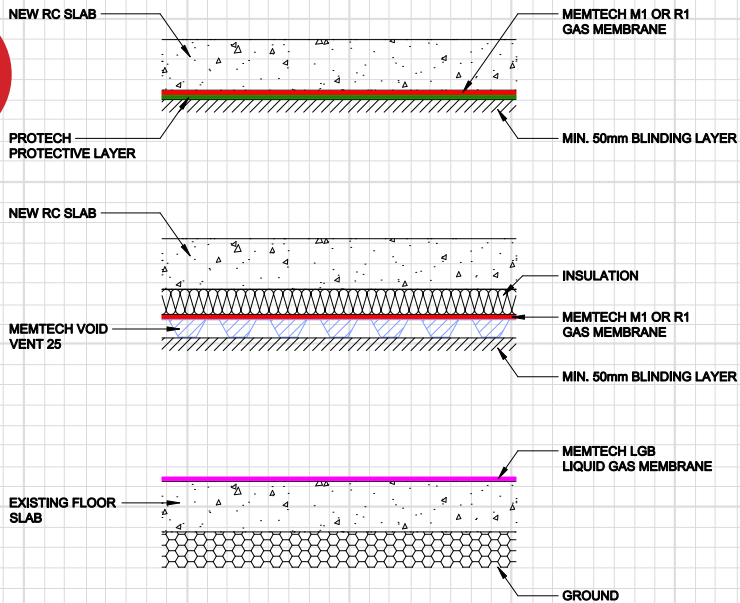
A 300mm wide by 20m long single-sided self-adhesive tape. Used as an under-tape for forming lap joints with Pro Titan Bond. Note that wherever possible, plastic membranes should be welded when used as primary protection against ingress of Hydrocarbons and VOC's, in accordance with CIRIA C748. Guidance on the use of plastic membranes as VOC barriers.

DMS 440

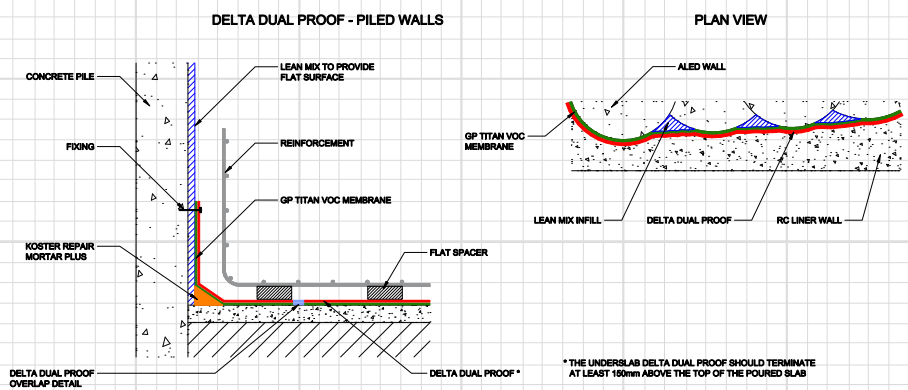
300mm x 20m



GROUND GAS PROTECTION TO FLOORS



PRO TITAN VOC/DELTA DUALPROOF - PILED WALLS



3

VENTILATION

A passive ventilation system when connected to air inlets and outlets allows for a passive venting solution to facilitate safe dilution and dispersal of dangerous ground gases allowing for maximum flexibility to design.

Delta's passive ventilation system works beneath the footprint of the structure to dilute hazardous gases to a safe level and then to disperse them into the atmosphere.

VENTILATION



PRO VOID VENT 25

Pro Void Vent 25 offers a passive venting solution which facilitates the dispersal and dilution of dangerous gases. Pro Void Vent 25 has been specially designed to provide for high levels of air and/or gas flow.

- Creates a de-pressurisation zone for collection of ground gases
- Tough, durable design
- Quick & easy application
- High gas flow capacity

DMS 404

0.9m x 50m



GROUND GAS MITIGATION

Gas protection is a technical solution to prevent or to control gas penetration into properties. The control of gas migration is normally achieved by blocking the pathway or removing the source of gas generation. A passive ventilation system when connected to air inlets and outlets allows for passive venting solution to facilitate safe dilution and dispersal of dangerous ground gases allowing for maximum flexibility to design. A Ground Gas Protection System Design Specialist will be able to interpret the requirements of BS8485:2015+A1:2019 to produce a design which incorporates a suitable gas protection system. Pro Void Vent 25 systems can be designed, supplied and installed by our highly skilled Delta Registered Installers.

VENTILATION



MITIGATION FAN

All RadonAway® fans are specifically designed for Radon mitigation. RPi Series Fans provide superb performance, run ultra-quiet and are attractive. They are ideal for most sub-slab Radon mitigation systems.

- Stay-White™ housing
- Energy efficient, ultra-quiet operation
- Seams sealed to inhibit Radon leakage (RP145i double snap sealed)
- ETL Listed - for indoor or outdoor use

DMS 700

145i

DMS 701

265i



RADON SUMP

A Radon Sump is a rotationally moulded plastic unit designed to act as a collection point for Radon gas prior to it being ventilated away when connected to a mitigation fan.

- 4 Spigots for 110mm pipe connections
- Designed to collect Radon gas so that it can be safely ventilated away
- Manufactured from medium density polyethylene plastic
- Works effectively under solid floors and under suspended floors

DMS 045



ADJUSTABLE PERISCOPE RECTANGULAR VENT UNIT

Adjustable Periscope Vent is designed to provide a clear airflow passage to a void beneath block and beam and timber floors. The adjustable periscope vent allows for adjustment between brick courses. 9 x 3 inches airbrick attached to vent equates ventilation space of approx 6,000mm².

DMS 432



RECTANGULAR VENT UNIT

The Rectangular Vent unit is a strong, robust vent suitable for use with gas ventilation systems. This multipurpose vent allows gas and unwanted odours to be released into the external atmosphere.

DMS 421



VENT MAT TEE CONNECTOR

Vent Mat Tee Connector, also known as a T Fitting, enables connection of Pro Void Vent 25 mat to ventilation ducting. This Mat Tee Connector has a characteristic 'T' shape with outputs at 90 degree angles.

DMS 430



VENT MAT CONNECTOR

The Vent Mat Connector is specifically designed to be used to connect the Pro Void Vent mat with the Adjustable Periscope Vent.

DMS 428

ANCILLARIES



GAS VENT MAT CONNECTOR

The Gas Vent Mat Connector is specifically designed to be used to connect the Pro Void Vent mat with the 100mm circular outlet enabling connection via 100mm solid pipe to vent box, vent bollard and/or vent gully.

DMS 431



SOLID CONNECTOR PIPE

Solid Connector Pipe is a strong, robust pipe, with a ribbed outer layer. The ribbed outer layer highly increases the solid pipes strength, enabling the pipe to withstand larger forces.

DMS 436

110mm x 1m



SLOTTED CARRIER PIPE

The 100mm Slotted Carrier Pipe has a 25mm slot cut along its length to accommodate the Void Vent Mat. The Void Vent Mat can easily be fitted into the slot which allows the Void Vent Mat to cover the entire footprint of the structure.

DMS 427

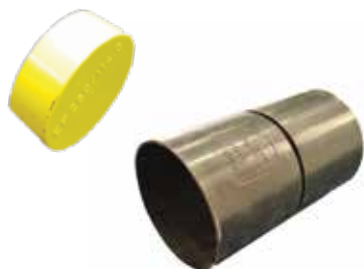


90° DEGREE BEND

The 90-degree bend enables two sections of 100mm solid pipe where changes of direction are required. This 90-degree bend is suitable to fit on both internal and external corner sections.

DMS 424

750mm x 110mm



END CAP / PIPE COUPLING

The End Cap can be fitted to the end of a Solid 100mm Pipe, the 100mm Slotted Pipe and also the 100mm Vent Mat Tee Connector. The End Cap creates a dead end for the flow of ground gas.

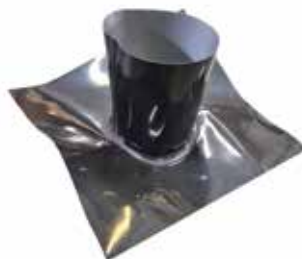
The Pipe Coupling enables simple connection of varying lengths of 100mm pipe.

DMS 426

End Cap

DMS 425

Pipe Coupling



110MM PIPE SLEEVE

The pre-formed Pipe Sleeve 110mm is commonly known as a 'top hat' and are designed to offer a professional gas resistant solution for sealing ground gas membranes around service penetrations. Images show M1 membrane (1) and Tital VOC (2) which are suitable to varying ground gas requirements. [Available in any size as we make these to order with a 3-5 day turnaround].

DMS 444



CIRCULAR VENT ALLOY GRILL

The Circular Vent - Alloy Grill is an alternative to the Rectangular Vent. A strong, robust vent suitable for use with gas ventilation systems. This multi-purpose vent allows gas and unwanted odours to be released into the external atmosphere.

DMS 422



VENT BOLLARD

Vent Bollard offers an alternative method of ground gas venting to the Vent Box/Circular Vent Gully. The Vent Bollard provides an efficient and economical method for venting ground gases from Vent Mat Systems. For projects where alternative venting methods are required or if there is a higher level of free air flow required.

DMS 435

ANCILLARIES



AIR BRICK

Air brick for venting harmful ground gases from a property. The air brick replaces an external masonry brick. It incorporates a front mounted louvered grill to permit airflow while blocking out wind driven rain and prohibiting large insects from gaining access.

DMS 457



PRO INLET PIPE SECTION T-PIECE

Pro Inlet pipe section T-Piece is a robust pipe connector. Compatible with all Pro Void Vent 25 pipes. This T-Piece is useful if you wish to funnel two points of collection to one point.

DMS 458

VOID FORM CONNECTORS

Void Form Outlet Connectors are a strong, secure connectors for the Pro Void Vent 25 system. Void Form Connectors are designed to connect the Pro Void Vent 25 membrane to outlets such as bollards or vents. The function of a venting system is to carry harmful ground gases efficiently, safely and quickly from beneath a structure and dispersal of these gases into the atmosphere. Void Vent outlet connectors are an integral part of any ventilation system. The type of venting outlet and fittings to disperse gases is dependent on the structure type and the level of gas flow found at the site. Pro Void Vent 25 is engineered for the geotextile filter side to connect with the ground. Pro Void Vent 25 is laid on a sand or concrete blinding layer under the ground floor slab below the gas barrier membrane to provide passive ventilation in accordance with BS8485:2015+A1:2019. Pro Void Vent 25 can be laid in strips at 6m centres or across the entire footprint of the building depending on CS classification and dimensions of the building to provide the appropriate level of ventilation in accordance with BS 8485:2015+A1:2019.



DETAILING



PRO TITAN INSTALLATION



RESIDENTIAL PROPERTY



HYDROCARBON LAYER FOUND AT RESIDENTIAL PROPERTY



PRO M1 INSTALLATION



PENETRATION DETAILING



GROUND GAS PROTECTION AT COMMERCIAL STRUCTURE

GROUND GAS PROTECTION

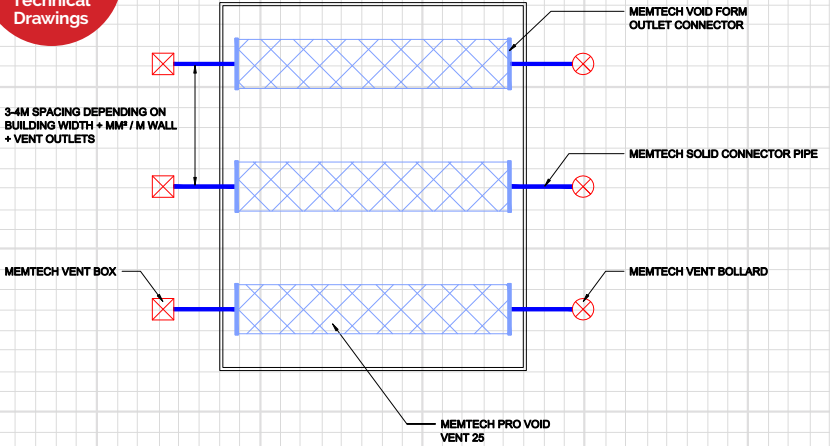


PRO VOID VENT 25

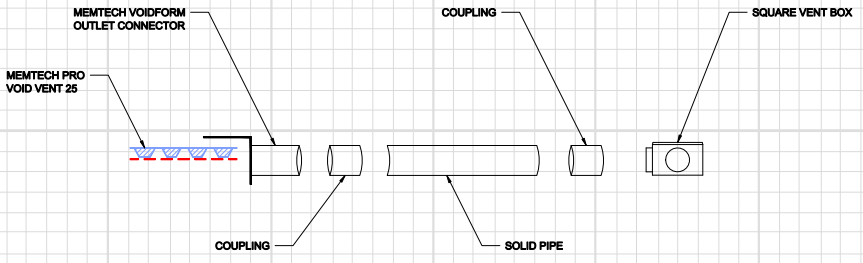


PRO LIQUID GAS BARRIER

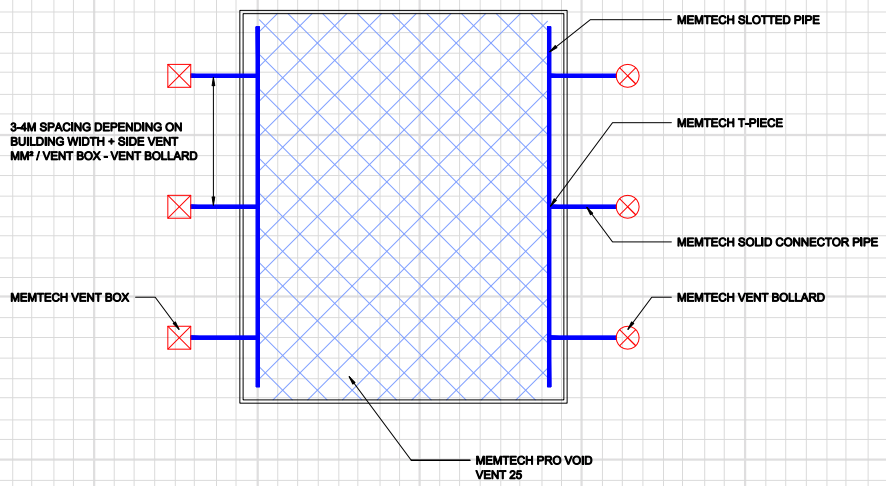
TYPICAL PRO VOID VENT 25 LAYOUT



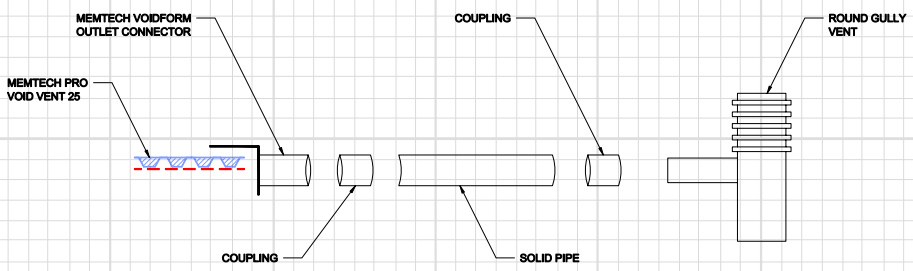
PRO VOID VENT 25 - WITH SQUARE VENT BOX



TYPICAL PRO VOID VENT 25 MATT LAYOUT



PRO VOID VENT 25 - WITH GULLY VENT



4



ROOF(t4)

COLD LIQUID APPLIED WATERPROOFING

Delta Roof Guard Cold Applied Liquid Waterproofing Systems are engineered to provide a fast curing, flexible, elastomeric solution.

This cost-effective cold liquid water proofer is suitable for new or existing projects without the requirement for mechanical restraint, welding, or torching, negating any fire risk during application.



DELTA ROOF GUARD QC

A rapid curing one-component, liquid waterproofing membrane which is laid in a 2-layer system, enabling Delta Roof Guard Glass Fibre Reinforcement to be embedded in the base layer. Offering a faster curing time, as the 2-layer system will allow for inspection of the base layer prior to application of the top coat.

- Broof(t4)
- Exceptionally fast curing
- Compatible with a wide range of substrates
- Green Roof Approved

DMS 800

25kg



DELTA ROOF GUARD CP

Delta Roof Guard CP is a two-part cold applied liquid polyurea waterproof membrane. The membrane cures in a continuous and elastic form, as a totally adhered layer. This waterproofing layer guarantees total water tightness and withstands building movements.

- Broof(t4)
- BBA Approved
- Supplied with 15kg Delta Super-Accelerant
- Seamless applications - no joints or fixings

DMS 801

26.5kg



DELTA ROOF GUARD SUPER-ACCELERANT

A high performance, single component, moisture instigated polyurethane when added to Delta Roof Guard CP dramatically reduces cure time.

- Broof(t4)
- Dramatically reduces cure time of Delta Roof Guard CP
- Moisture instigated chemical reaction
- Minimises application failure

DMS 808

1.5kg

ROOF GUARD ^BROOF(t4)



DELTA ROOF GUARD GENERAL PRIMER

A single component polyurethane resin primer for improving the adhesion of Delta Roof Guard CP and QC systems to various substrates such as dry old: concrete, masonry, bitumen roofing and asphalt.

- Polyurethane primer for re-coating old bituminous layers
- Minimises adhesion failure
- Strengthens & seals ready for application of Delta Roof Guard CP or QC
- Compatible with a wide range of substrates

DMS 803

4kg



DELTA ROOF GUARD CONCRETE PRIMER

A two-part water based epoxy primer (humidity primer) is a highly effective penetrative resin, which provides a sound, solid base prior to the application of Delta Roof Guard QC or Roof Guard CP. Delta Roof Guard Concrete Primer will improve adhesion to damp: wood and concrete substrates.

- Broof(t4)
- Improve adhesions to damp: wood and concrete substrates
- Effectively blocks residual moisture flow and prevent blistering of the polyurethane coating applied on top
- 2-component, water-based epoxy resin

DMS 802

5kg



DELTA ROOF GUARD METAL PRIMER / ACTIVATOR

A single component polyurethane resin primer for improving the adhesion of Delta Roof Guard Primers, CP and QC systems to various substrates such as metal, single ply PVC, EDPM and GRP surfaces.

- Broof(t4)
- Flexible coating
- Excellent adhesion for difficult substrates
- Strengthens and seals ready for application of Delta Roof Guard CP or QC

DMS 804

4kg



DELTA ROOF GUARD COLODUR

A high performance one-component aliphatic isocyanate-based polyurethane resin, that cures upon reaction with atmospheric moisture, giving a hard and flexible coatings with good abrasion, scratch and weather resistance. Colodur is an excellent surface protection for use over Delta Roof Guard membranes.

- Broof(t4)
- Gives protective UV topcoat to Delta Roof Guard CP & QC
- Pigmented colodur does not yellow on exposure to sunlight
- Scratch and weather resistance

DMS 813

4kg



DELTA ROOF GUARD FIBRE REINFORCEMENT

Delta Roof Guard Glass Fibre Reinforcement is used to reinforce the Base Coat of the Delta Roof Guard Systems. Delta Roof Guard Glass Fibre Reinforcement improves the mechanical properties of the cured waterproofing membrane. The Glass has a weight of 150gms per sqm with a roll size of 1 x 150m (150sqm per roll) and 0.3m x 100m (30sqm per roll).

- Broof (t4)
- Green Roof Approved
- Compatible with a wide range of substrates
- Suitable for new construction & repair on existing structures

DMS 810

1m x 100m

DMS 809

0.3m x 100m



DELTA ROOF GUARD SOLVENT PU

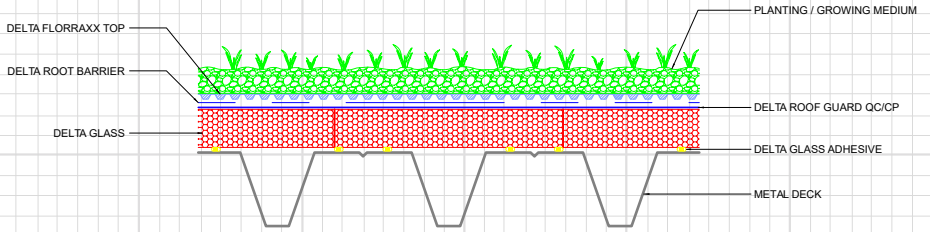
Can require under certain conditions, a faster curing process because of job constraints or low temperature or air humidity.

- Broof(t4)
- Viscosity adjustment
- Tool cleaning solvent
- Compatible with Roof Guard Range

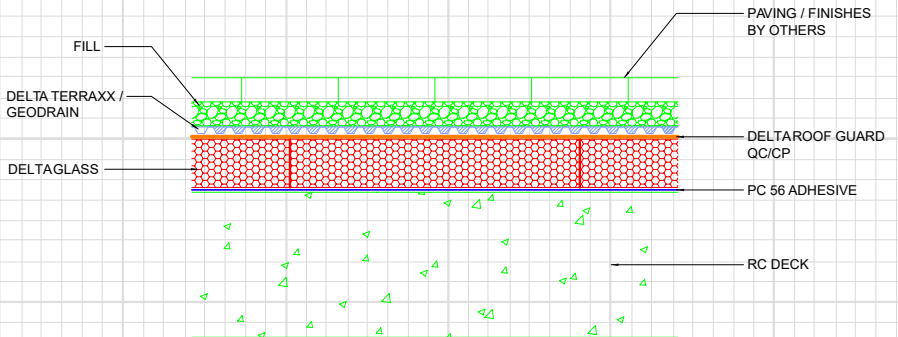
DMS 807

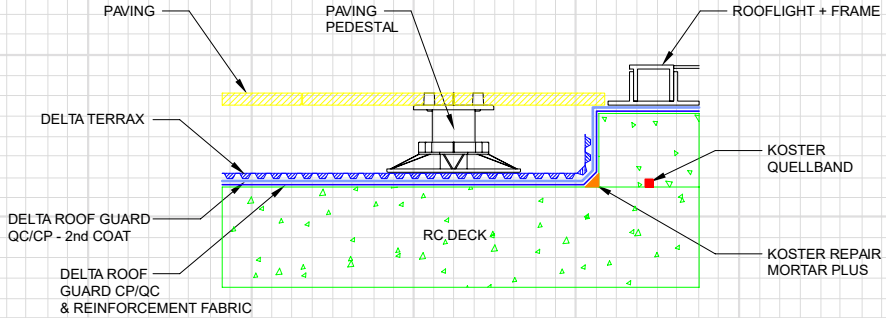
1.5kg

GREEN ROOF: STEEL RIBBED DECK & DELTA GLASS



PAVED DECK - RC DECK & DELTA GLASS





5



PRE & POST APPLIED MEMBRANES

Type A Waterproofing Systems are barrier membranes which are applied directly to the building/structure.

Type A membranes can be applied to both the positive (outside) and negative (inside) side(s) of a structure to prevent water ingress.

PRE APPLIED MEMBRANE PRODUCTS

Pre-Applied waterproofing membranes are a unique system which can easily be applied on blinding concrete for the base slab and to prepared vertical excavation walls (e.g. piled walls, diaphragm walls or similar). Pre-Applied membranes can also be applied directly onto outer interior sides of double-faced formwork in open-cut excavation. Pre-Applied membranes bond to concrete to prevent the ingress or migration of water around a structure. Pre-Applied membranes can be used to waterproof all types of reinforced concrete basements and other below ground structures.



DUALPROOF

DualProof is a fully and permanently bonded, Pre-Applied membrane. It is applied before the steel reinforcement is fixed and the concrete poured. It consists of a sealed two layer highly flexible PVC membrane laminated with a non-woven PP-fleece. DualProof can be installed without heat or open-flame, overlapped and sealed with butyl tape and special adhesive for detailing. The new PP FiberTex Technology gives the DualProof its unique bond and connection to the concrete. The PP-Fleece integrates into the concrete when poured giving a strong mechanical bond once cured.

DMS 480

1.08m x 20m

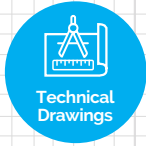


CEM 805 ADHESIVE

CEM 805 Adhesive is used to permanently seal joints between DualProof membranes. CEM 805 Adhesive can also be used to effectively seal the inside of service penetrations in basements against water ingress and is hydrophilic. Resistant to weathering and reacts with atmospheric moisture to form an elastic seal. Compatible with paints. Excellent chemical resistance for green roof application.

DMS 286

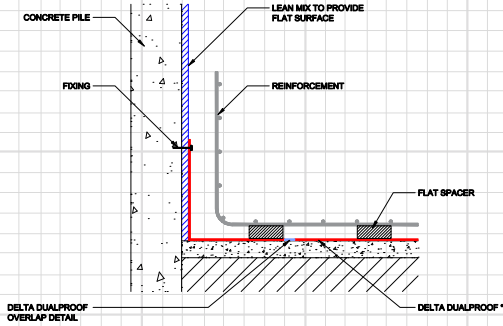
290ml



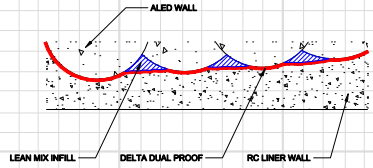
Technical Drawings

DUALPROOF PILED WALLS

DELTA DUALPROOF - PILED WALLS

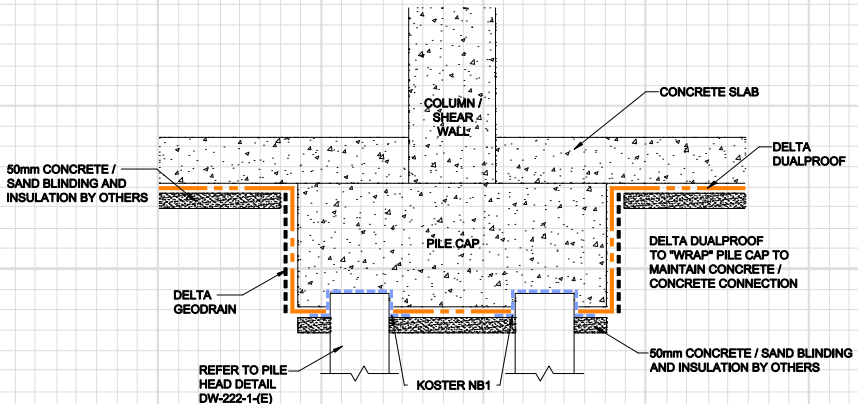


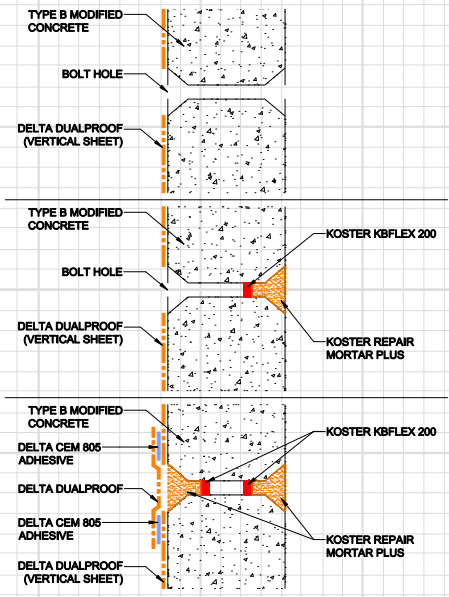
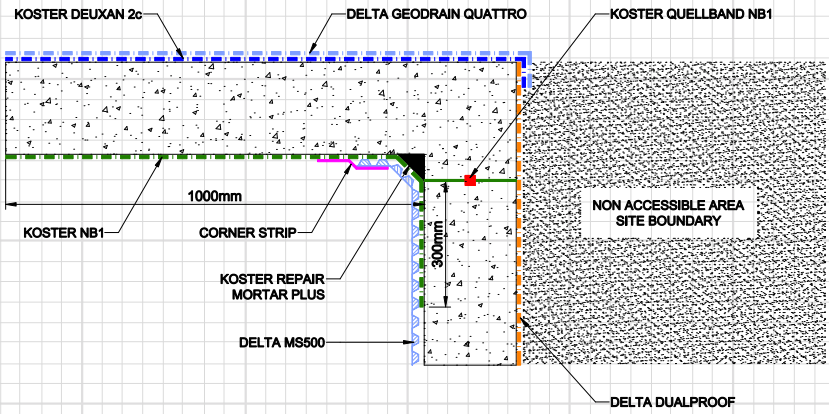
PLAN VIEW



* THE UNDERSLAB DELTA DUALPROOF SHOULD TERMINATE AT LEAST 150mm ABOVE THE TOP OF THE POURED SLAB

DUALPROOF - TYPICAL PILE CAP/COLUMN DETAIL





PRE APPLIED MEMBRANE PRODUCTS



DELTA AMPHIBIA 1.3MM

Delta Amphibia 1.3mm Pre-Applied membrane is a co-extruded multilayer waterproofing membrane. This robust, tough but flexible waterproofing membrane is ideal for all construction applications. Delta Amphibia is an EPDM waterproof membrane that is: reactive when in contact with water, self-repairing self-sealing and self-fastening to concrete.

Delta Amphibia offers differentiated function for total water tightness of underground structures against water seepage. Moreover, it is provided with a calibrated non-woven fabric on the inner face/side in contact with fresh concrete which allows the mechanical adhesion of the membrane to the structure.

DMS 1035	0.9m x 10m
DMS 1036	1.8m x 20m



DELTA AMPHIBIA 1.6MM

Delta Amphibia is a Type A, external Pre-Applied waterproofing membrane system that provides a complete and continuous waterproof barrier to the external surface of any below ground structure. The Flexible nature of Delta Amphibia means that it can easily be formed on site to suit the exact design requirements.

Delta Amphibia 1.6mm Pre-Applied membrane is a co-extruded multilayer waterproofing membrane. This robust, tough but flexible waterproofing membrane is ideal for all construction applications. Delta Amphibia is an EPDM waterproof membrane available in two widths, reactive when in contact with water, self-repairing, self-sealing and self-fastening to concrete.

DMS 1000	0.9m x 10m
DMS 1001	1.8m x 20m

DELTA AMPHIBIA ANCILLARIES



**DELTA AMPHIBIA
PRESSURE LINE**

Steel straight profile coated on one side with Delta Amphibia membrane.
Length - 1.5m
Height - 5cm

DMS 1037 10 Pcs



**DELTA AMPHIBIA
PRESSURE CORNER 90°**

Steel corner profile coated on one side with Delta Amphibia membrane.
Length - 1.5m
Height - 5cm X 10cm

DMS 1038 10 Pcs



**DELTA AMPHIBIA
PRESSURE CORNER 270°**

Steel corner profile coated on one side with Delta Amphibia membrane.
Length - 1.5m
Height - 5cm X 10cm

DMS1039 10 Pcs



**DELTA AMPHIBIA
SAFETY TAPE**

One-sided sealing tape typically used for connecting and sealing Delta Amphibia membranes together where they join or overlap.

DMS 1002 60mm x 25m



**DELTA AMPHIBIA LAP
SEAL**

Butyl adhesive tape for overlapping joints.
Roll Size - 60mm x 25m

DMS 1041 10m roll



**DELTA AMPHIBIA
STOPPER**

Protective stopper to close formwork holes.

DMS 1042 Bag 50 Pcs



**DELTA AMPHIBIA BI
MASTIC**

High performance deformable adhesive mastic.
600 cc/ml unipack and nozzle (per unit).

DMS 1028 10 unipack box



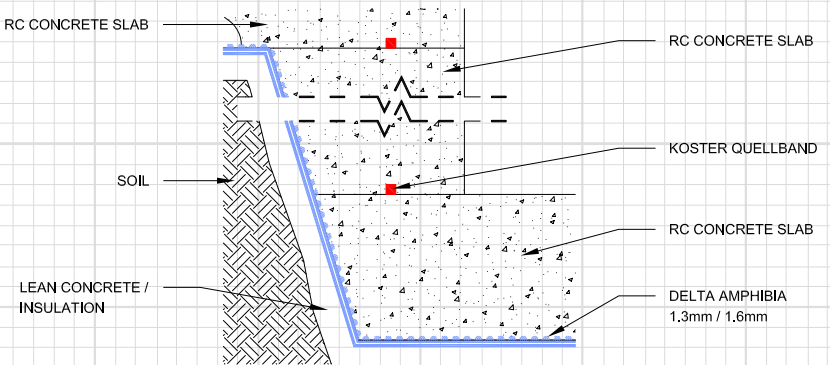
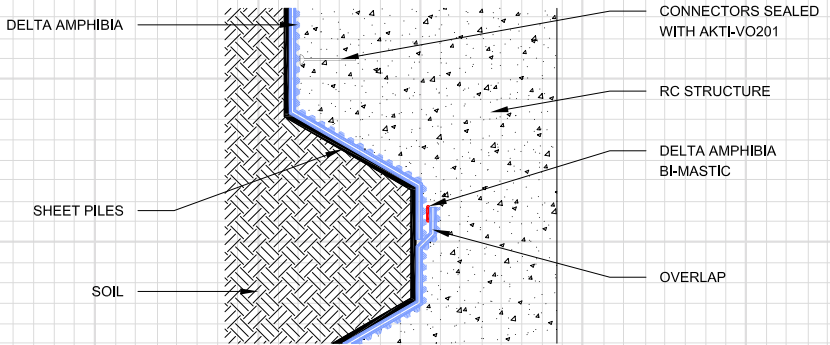
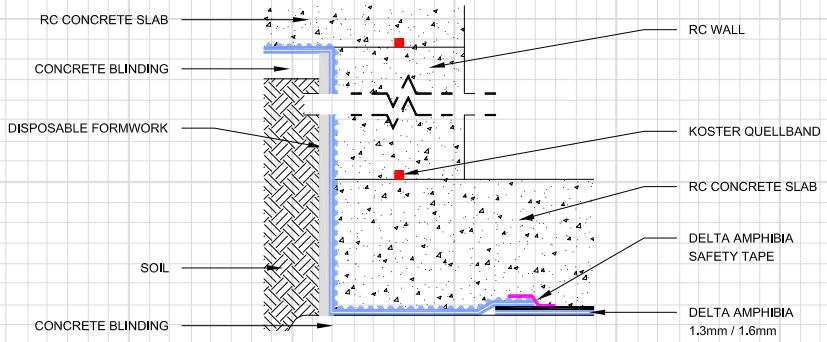
AMPHIBIA AKTI-VO 201

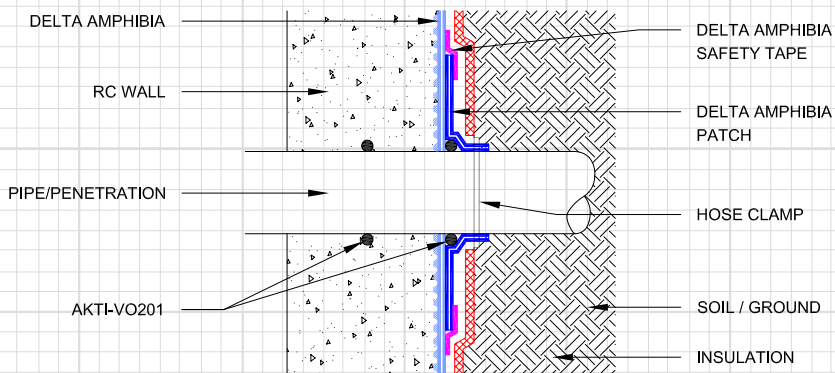
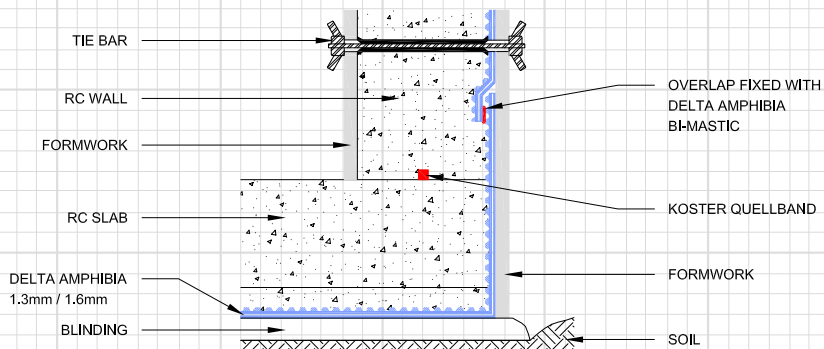
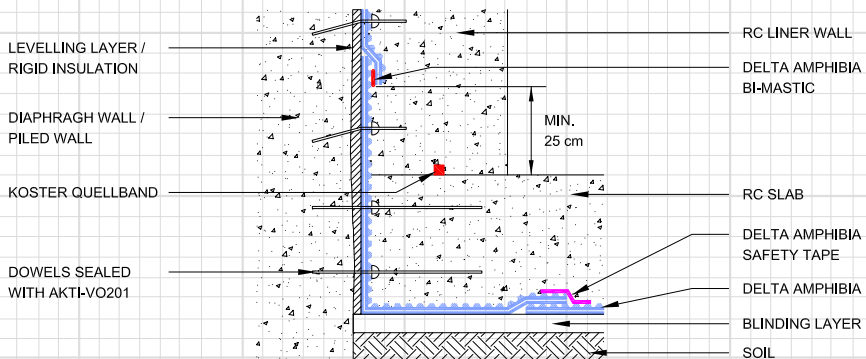
High performing hydro-expansive mastic for sealing through-elements of Delta Amphibia membranes and sealing and waterproofing passing bodies and general cracks in concrete.
320cc/ml (per unit).

DMS 1004 6 unipack box

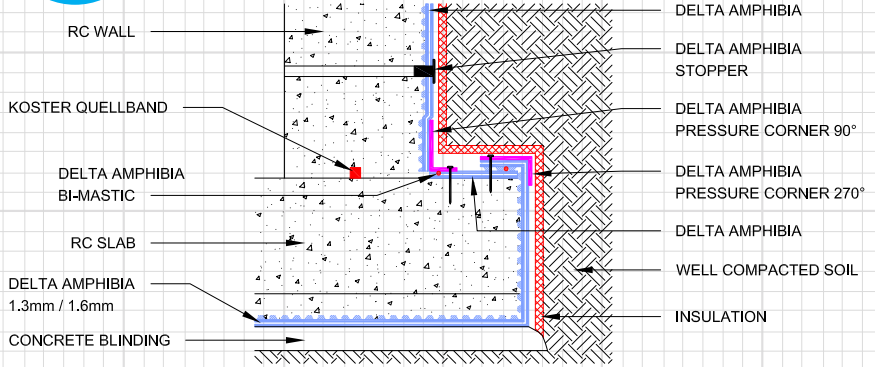
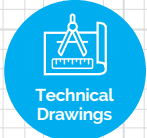


Technical Drawings

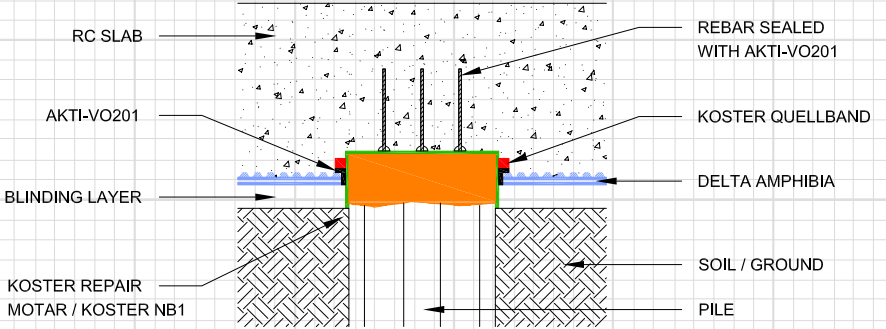




DELTA AMPHIBIA WALL/SLAB DETAIL



DELTA AMPHIBIA PILEHEAD DETAILING





DELTA AMPHIBIA INSTALLATION



DELTA DUALPROOF INSTALLATION



DELTA DUALPROOF POST CONCRETE POUR



DELTA DUALPROOF PRE CONCRETE POUR



RESIDENTIAL STRUCTURE



COMMERCIAL STRUCTURE

PRE-POST
APPLIED



SITE PREPARATION



DELTA AMPHIBIA INSTALLATION

6



KOSTER

Koster Bauchemie AG specialises in high quality structural waterproofing products and systems. Their extensive experience around the world has enabled them to constantly develop new ideas in order to provide the most innovative solutions to the construction industry.

Koster systems and products stand out due to their exceptionally easy and user-friendly application.

WATERPROOFING



KOSTER MS FLEX FOIL

Koster MS Flex Foil is an eco-friendly, premium single component, liquid applied, elastic, crack bridging waterproofing material, based on MS Polymer technology. It is characterized by excellent adhesion to a wide variety of building materials and can be applied on dry or slightly moist substrates.

DMS 228

8kg

DMS 294

25kg



KOSTER 21

Koster 21 is a 2 component, solvent free, liquid applied, elastic and crack bridging, multi-purpose waterproofing product with excellent adhesion to dry and moist substrates. Liquid applied and seamless. UV stable, suitable for indoor and outdoor use.

DMS 244

20kg



KOSTER KD 1 BASE

Fast setting, mineral sealing slurry with high resistance against aggressive ground moisture and pressurized water. Can be used in combination with KD 2 Blitz Powder and KD 3 Sealer.

DMS 199

15kg



KOSTER KD 2 BLITZ POWDER

Highly reactive powder with an extremely short setting time. Active leakages can be stopped within a few seconds simply by using the dry powder. Can be used in combination with KD 1 Base and KD 3 Sealer.

DMS 185

15kg

WATERPROOFING



KOSTER KD 3 SEALER

A low viscosity silicifying liquid. The active ingredients penetrate deeply into the substrate and form water insoluble compounds. The pores are plugged and permanently waterproofed through continuing crystallization. Used in combination with KD 1 Base and KD 2 Blitz Powder.

DMS 200

6kg



KOSTER KD SYSTEM PACK

System package for the negative side waterproofing of mineral surfaces against pressurized water such as in internal basement waterproofing. The KD System stops flowing water and forms a permanent waterproofing layer on masonry and concrete.

DMS 293

4m² coverage

KOSTER NB 1 GREY

NB 1 is a crystallizing mineral waterproofing slurry system for sealing against pressurized water (>13 bar). Suitable for positive side and negative side waterproofing.

DMS 178

25kg



KOSTER NB ELASTIC GREY

Koster NB Elastic Grey is a 2-component system, bridges cracks up to 2 mm and is resistant to pressurized water. It is suitable for the waterproofing of balconies, terraces, and crack bridging waterproofing of concrete elements.

DMS 372

33kg



KOSTER NB 4000

NB 4000 is elastic and crack bridging and suitable for waterproofing external basements, masonry, and the repair of defective waterproofing layers. Cures reliable and quickly in difficult ambient conditions (applied from +2°C upwards).

DMS 167

25kg



KOSTER KBE LIQUID FILM

Solvent-free, highly elastic bitumen/rubber-based sealing compound. For high quality external waterproofing of construction members in ground contact. Also suitable for waterproofing under protective screed, crack bridging waterproofing of concrete floors, flat roofs and much more.

DMS 251

6kg

DMS 203

24kg



KOSTER DEUXAN 2C

Robust, two-component, elastic, polymer modified, fibrated bitumen thick film sealant (PMBC) for the secure waterproofing of buildings in accordance with DIN 18533. Suited for the intermediate waterproofing/external coating.

DMS 169

32kg



KOSTER REPAIR MORTAR PLUS

Koster Repair Mortar Plus is a watertight, fast setting, slightly expanding repair mortar with excellent adhesion even to old building material substrates. With the addition of Koster SB Bonding Emulsion, it can be used as a PCC (polymer modified cement concrete) mortar.

DMS 171

25kg

WATERPROOFING



KÖSTER REPAIR MORTAR PLUS NC

Koster Repair Mortar NC is a repair mortar and plaster with excellent workability. It has a high adhesion to old and new mineral building material substrates. Repair Mortar NC is characterised by high chemical and mechanical resistance and Compressive Strength. It is fiber reinforced, ideally suited as substrate preparation for corrosion protection.

DMS 284

25kg



KÖSTER WATERSTOP

A fast curing, expanding plug and repair mortar. Can be used to seal water leakages in concrete, masonry and natural stone structures quickly. Can be used to form fillets which are subject to pressurised water to seal slotted walls, manholes, cable and pipe penetrations and to seal damaged pipe joints.

DMS 172

15kg



KÖSTER SB BONDING EMULSION

Multi-purpose liquid plasticizing dispersion for use with all cement based mortars, plasters and sealing slurries. Solvent free, plasticizer and filler free. Provides a plastifying effect, increases the elasticity and reduces the water absorption of mineral systems.

DMS 173

5 ltrs



KÖSTER KSK SY 15

Cold applied self-adhesive rubber/bitumen waterproofing membrane. Suitable for application from + 5 °C. KSK SY 15 is highly flexible, immediately waterproof, crack bridging and resistant to driving rain. Radonproof. KSK SY 15 is highly ductile and can be applied to difficult structures with ease.

DMS 245

1.05m x 20m



KÖSTER BITUMEN PRIMER

Koster Bitumen Primer is a cold applied, low odor, solvent containing bitumen primer. Displaying excellent penetration properties. It acts as a dust-binder and as a bonding agent for subsequent hot or cold applied liquid bitumen coatings and self-adhesive membranes.

DMS 037

10 ltrs



KÖSTER GLASS FIBRE MESH

Koster Glass Fiber Mesh is a reinforcing fabric for reinforcing coatings e.g., made of Koster KBE Liquid Film, Koster NB 4000, Koster 21 and Koster Deuxan 2C. The application of Koster Glass Fiber Mesh is predominantly necessary on areas which are exposed to pressurized water, and which are in danger of cracking as well as on connections, transitions and fillets.

DMS 174

33cm x 100m

DMS 188

1m x 100m



KÖSTER BE RAINPROOF

Koster BE Rainproof protects fresh bitumen coatings against rain. BE Rainproof is a liquid accelerator which forms a water-resistant film on all fresh bitumen emulsions. Koster BE Rainproof must only be applied to the finished waterproofing – it may not be applied to intermediate layers.

DMS 223

5kg



KÖSTER FLEX FABRIC

Koster Flex Fabric is a highly flexible, finely woven plastic fabric reinforcing mesh with very high tear resistance. Koster Flex Fabric is mainly applied in areas which are in danger of cracking as well as on feed throughs, connections, and transitions.

DMS 347

1m x 50m



NB1 SPRAY APPLICATION



DEUXAN 2C



NB4000 - COLD APPLICATION



DEUXAN 2C



SPRAY APPLICATION OF NB1



RESIN INJECTION - LONDON UNDERGROUND



KOSTER



KD WATERSTOP



POLYSIL TG 500 - ANTI LIME INHIBITOR



DEUXAN 2C - TWIN WATERPROOFING



COMMERCIAL STRUCTURE



REMEDIAL WATERPROOFING



RESIDENTIAL STRUCTURE



PODIUM DECK



HYBRID BLUE ROOF

RESIN INJECTION



1C INJECTION PUMP

KOSTER 2 IN 1

Koster 2 IN 1 is a water reactive elastic PU-injection resin for single and two stage injection of dry and water bearing cracks and joints. Koster 2 IN 1 stops active leaks and seals cracks and construction joints permanently and elastically.

DMS 346	20kg
DMS 382	5kg



1C INJECTION PUMP

KOSTER KB-POX IN

Solvent free, 2 component low viscous epoxy injection resin for crack injection. Koster KB-Pox IN permanently seals and bridges cracks, as well as joints and restores structural integrity. Without pre-injection Koster KB-Pox IN can be used for filling and closing dry, damp and wet cracks, joints and voids.

DMS 383	1kg
DMS 252	6kg



1C INJECTION PUMP

KOSTER IN 5

Koster IN 5 is a two-component elastic PU injection resin, specially suitable for hose injection. For permanently and elastically sealing dry, moist and water bearing cracks and joints in concrete. Solvent free, low viscosity for permanently and elastically injecting, filling and sealing cracks, construction joints and corrosion protection.

DMS 264	10kg
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1C INJECTION PUMP

KOSTER IN 7

Koster IN 7 is a viscoplastic, water activated PU injection foam. Reacts only when in contact with water and spontaneously forms a compact, viscoplastic, waterproof polyurethane foam which is able to follow crack movements. Volume expansion up to 30 times. Free of solvents and fillers, resistant to hydrolysis. Single step waterproofing of water bearing cracks without the subsequent injection of a solid body resin.

DMS 375	27.5kg Combi Packaging
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**2C GEL
PUMP**

KOSTER PUR GEL

Water activated polyurethane gel for area injections as well as for waterproofing expansion and dilation joints. Koster PUR Gel reacts with water and can bind up to ten times its own weight in water. Oakum soaked in Koster PUR Gel can be an elegant method for solving difficult active water ingress problems in pipes, joints, and cavities.

DMS 323	2.5kg
DMS 384	25kg



**ACRYLIC
PUMP**

KOSTER INJECTION GEL G4

Low viscosity acrylic gel for curtain injection and area injection of masonry. Water based, elastic gel with a very low starting viscosity after initial mixing. It is capable of binding water during gelation. The swelling ability after full curing allows a 40% uptake of additional water into the gel structure. Due to the low starting viscosity it can be injected into fine substrate pores. Drinking water certification.

DMS 385	21.4kg
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**GROUT
PUMP**

KOSTER MICRO GROUT 1C

Injection grout for the restoration of structural strength in cracks or voids in masonry and concrete. Koster Micro Grout 1C possesses a high Compressive Strength, is shrink free, and does not show sedimentation during its pot life. Fields of application include crack injection also in overhead areas, filling of voids, as well as the grouting of masonry anchors.

DMS 569	26kg
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KOSTER PUR CLEANER

A reliable, high quality cleaning agent for unreacted polyurethane resins. Koster PUR Cleaner facilitates the cleaning of unreacted polyurethane. Fully cured polyurethane residues require mechanical removal.

DMS 241	10 ltrs
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JOINT SEALING



KOSTER KB-POX ADHESIVE

Koster KB-Pox Adhesive is a high performance, 2 component, epoxy based, adhesive specially designed for fastening Koster Joint Tapes to mineral, wooden and metal substrates. Koster KB-Pox Adhesive develops a high adhesive early strength to concrete, mortar, metal, wood and many other building materials. Vertical and overhead application is possible.

DMS 267

5kg



KOSTER FS PRIMER 2C

Koster FS Primer 2C is a fast curing, transparent, solvent free two component bonding agent. It is used as a primer for the subsequent application of Koster Joint Sealant FS-H and FS-V.

DMS 361

200g Combi Package



KOSTER JOINT SEALANT FS-V

Koster Joint Sealant FS-V is a flexible stiff/creamy polysulphide joint sealant. When fully cured, is a rubbery elastic sealant with a high mechanical load capacity, good resistance to water, sea water, salt solutions, benzenes, and mineral oils; it is root resistant, does not rot and it has very good retraction capabilities.

DMS 362

Black

4kg Combi Package

DMS 577

Grey

4kg Combi Package



KOSTER JOINT SEALANT FS-H

Self leveling joint sealant with excellent resistance against mechanical stresses and a high resistance against water, sea water, salt solutions, petroleum and mineral oils. It is rot and root resistant. Fields of application include permanently elastic waterproofing of horizontal joints in below grade construction.

DMS 363

Black

4kg Combi Package

DMS 578

Grey

4kg Combi Package



KOSTER PU FLEX 25

PU FLEX 25 is one component and cures with moisture to form a flexible sealant which can be overpainted after curing is finished. Highly elastic, low modulus polyurethane sealant, with good UV resistance and excellent adhesion to typical construction materials. The sealant is non sagging, highly thixotropic, easy smoothing and has good workability.

DMS 370

600ml



KOSTER QUELLBAND

5m Sodium-bentonite based swellable waterstop. With an alkalinity activated surface coating which stops premature swelling of the waterstop during the construction process.

DMS 296

Box of 6



KOSTER JOINT TAPE 20

Thermoplastic tape for sealing expansion and dilatation joints (up to 12cm) and broad, irregular cracks. Koster Joint Tape 20 is UV resistant, highly elastic and can withstand extreme movements in the joint. Suitable for use with Koster KB-Pox Adhesive, for fastening the joint tape to mineral substrates.

DMS 367

20cm x 20m



KOSTER JOINT TAPE 30

Koster Joint Tape 30 is UV resistant, highly elastic, thermoplastic tape for sealing expansion and dilatation joints (up to 20cm) and broad, irregular cracks. Suitable for use with KB-Pox Adhesive, for fastening the joint tape to mineral substrates.

SPECIAL ORDER

30cm x 20m

JOINT SEALING



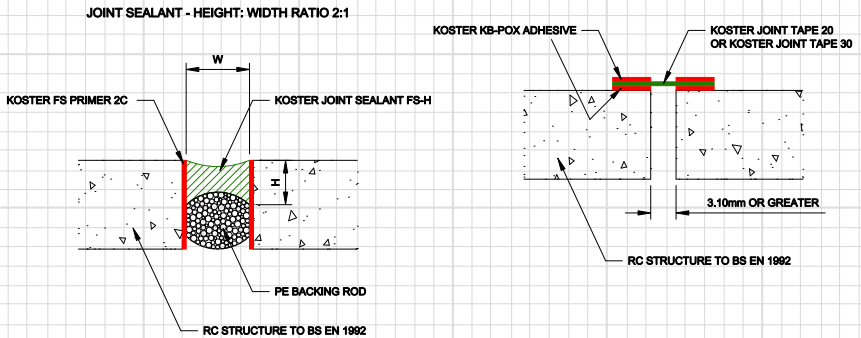
KOSTER KB-FLEX 200

Koster KB-Flex 200 is a 1-component, permanently plastic material that can be directly applied from the cartridge – even in the case of flowing water. Koster KB-Flex 200 is a permanent plastic sealing compound ideal for sealing pipe and cable penetrations, cavities and for custom detail waterproofing solutions against moisture and pressurized water.

DMS 237

310ml

EXPANSION / MOVEMENT JOINT DETAILING





KOSTER VAP | 06

Koster VAP | 06 Primer is a unique, water based, single component material for priming absorbent and non-absorbent substrates. For use as a primer for Koster VAP 2000 prior to installation of floor screeds and underlayments such as Koster SL Premium and SL Protect.

SPECIAL ORDER 1.2 lb Bottle



KOSTER VAP | 2000

The Koster VAP | 2000 is a one-coat moisture vapour reduction system consisting of a unique combination of epoxy resins and other chemical compounds. Koster VAP | 2000 is formulated to prevent floor failures on concrete slabs containing elevated levels of moisture vapour emission.

SPECIAL ORDER 25kg



KOSTER SL PROTECT

Koster SL Protect is a mineral based self-levelling underlayment with high resistance to chemical and mechanical stresses. It is an early loadable, directly useable levelling layer over uneven or coarse concrete and cementitious screeds. Due to its high chemical resistance, it is used to protect against light and medium corrosion and serves as a slowly reacting sacrificial layer in areas of high chemical stress.

DMS 571 25kg



KOSTER SL PREMIUM

Koster SL Premium is a high quality, fast setting underlayment that hardens tension free and provides a smooth, level surface ready to receive subsequent flooring systems. It hardens within hours to a smooth, strong, and multifunctional levelling layer. It may be applied onto a variety of substrates.

DMS 187 25kg

KOSTER FAÇADE



KOSTER FAÇADE CREAM

Koster Façade Cream is a high-grade façade impregnation for brick, natural stone and mineral renders. Due to its high resistance against alkalinity it is also suited for application to fresh mineral substrates. The creamy, stable consistency and the resulting application with brush or roller reduces the drip or spraying losses to a minimum. Koster Façade Cream protects buildings from driving and normal rain water; it is water vapour permeable, resistant to frost and de-icing salts.

DMS 180

5 ltrs

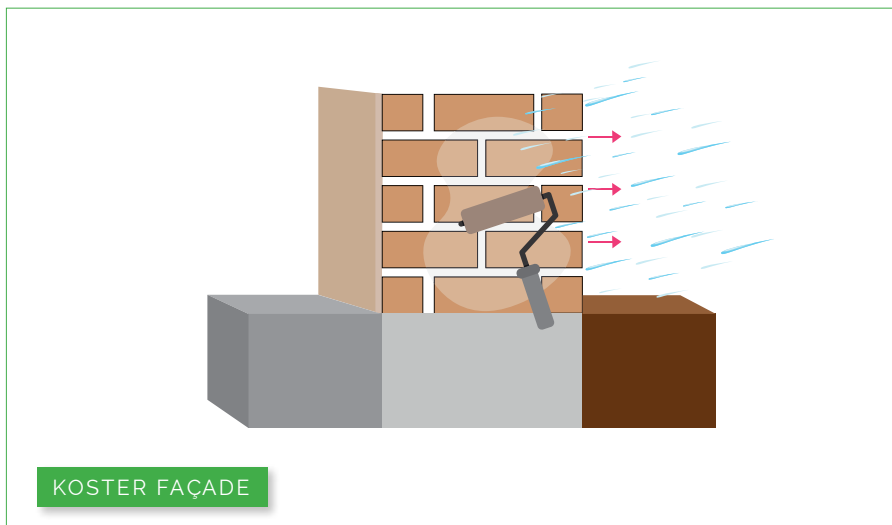


KOSTER SILICONE WHITE PAINT

Koster Silicone Paint White is a matt, water-soluble, capillary-hydrophobic façade paint based on silicon resins with special bonding enhancers and special non-wetting-surface effect. It dries to a smooth finish and has a highly vapour-permeable surface. It has a high water-repellent effect, high CO₂ and water vapor permeability, very good weather resistance and is resistant to driving rain.

DMS 579

10kg



KOSTER FAÇADE

CONCRETE REPAIR & PROTECTION



KÖSTER Z1

Koster Z1 is a polymer modified special slurry for the mineral corrosion protection of steel reinforcement.

DMS 378

1kg



KÖSTER Z2

Koster Z2 is a polymer modified special slurry for the mineral corrosion protection of steel reinforcement. Koster Z2 is pigmented red to allow for visual control during application.

DMS 379

1kg



KÖSTER BETOMOR MULTI A

Koster Betomor Multi A is a shrink free, waterproof, fast curing multi-purpose mortar for concrete restoration. Exceptionally low density for repairing and reprofiling concrete, screed surfaces and corrosion protection.

DMS 380

15kg



KÖSTER KB-FIX 5

Waterproof, weatherproof, fast curing mortar with high Compressive Strength (sets after approx. 5 minutes) for fast installations as well as for small repairs of masonry and concrete. Free of soda and chlorides.

DMS 283

15kg

CONCRETE REPAIR & PROTECTION



KOSTER TURBO MORTAR M

Koster Turbo Mortar M is a fiber reinforced repair, concrete replacement, and re-profiling mortar with high chemical and mechanical resistance. Koster Turbo Mortar M can be mechanically stressed after 60 minutes. The consistency can be regulated for vertical or horizontal application.

DMS 221

25kg



KOSTER REPAIR MORTAR NC

Repair Mortar NC is characterized by its high chemical and mechanical resistance and Compressive Strength. Fiber reinforced. Suitable for large reprofiling and repair works, has excellent workability characteristics and adhesion to old and new mineral building substrates.

DMS 284

25kg



KOSTER SEWER & SHAFT

Water tight, fast curing and fast setting restoration mortar specially designed for sewers and shafts. Koster Sewer and Shaft Mortar develops a high Compressive Strength, is fiber reinforced, easy to apply and workable even under flowing water. Approved for drinking water applications.

DMS 381

25kg



KOSTER TURBO SUPER PLASTICIZER

Koster Turbo Super Plasticizer is an additive for the adjustment of the mortar consistency of the Koster Turbo System (M and NC) to suit individual requirements on construction sites.

DMS 224

65g



KOSTER BDM

Koster BDM combines three important characteristics – it crystallizes, blocks capillaries and makes the concrete water repellent. This reduces the water absorbency of the concrete, increases its Compressive Strength and resistance against chemical attack. It is free of corrosive ingredients and is non sensitive to mechanical damage to the surface.

DMS 576	30kg
DMS 568	1000kg

TECHNICAL DATA

Appearance	Milky
Density (20°C)	Approx 11g/cm ³
Viscosity	Approx. 100 – 200 mPa s
Minimum Working Temperature	+ 5°C
Consumption	2% (mass) of cement content

MASONRY



AIRLESS
SPRAYER

KOSTER POLYSIL TG 500

Koster Polysil TG 500 anti-lime is a low viscous, substrate solidifying, hydrophobizing combination product on a polymer/silicate basis for the protection of mineral substrates. This deeply penetrating primer for damp, salt-containing substrates and an anti-lime treatment for new concrete acting as a liquid hardener for sealing slurries.

DMS 170

10kg



**KOSTER RESTORATION
PLASTER KEY**

Fast, coarse plaster key with polymer additives for the substrate preparation of Koster Restoration Plasters. Very good bonding on very moist and highly salt burdened substrates.

DMS 399

25kg



KOSTER CRISIN CREAM

Koster Crisin Cream is a retroactive DPC (Damp Proof Course) resistant to moisture and salt content. Applied from inside and/or from the outside of a structure. It can be applied in cases of high degrees of moisture penetration (95% +/- 5% saturation) and with all degrees of salt contamination.

DMS 570

600ml



KOSTER CRISIN 76 CONCENTRATE

Very low viscosity synthetic resin for waterproofing against rising damp (wicking moisture) even in case of high moisture and salt contents in the masonry. Koster Crisin 76 Concentrate displaces water from the capillaries. After full cure, Crisin 76 Concentrate remains elastic and does not rot. Resistant to all aggressive media (acids, alkalis and salts), during application as well as after full cure.

DMS 289

Concentrate 10 ltrs

DMS 290

Cartridge 200ml



KOSTER FINE PLASTER

Koster Fine Plaster is hydrophobic, water, weather, and frost resistant. A finely textured thin layer plaster for smooth decorative surfaces on Restoration Plasters and mineral based substrates. It can be applied in layer thicknesses from 2 - 5 mm and is felt-floatable.

DMS 195

25kg



KOSTER RESTORATION PLASTER WHITE

Koster Restoration Plaster White is a salt and pressure resistant restoration plaster for the restoration of heavily moisture and salt burdened substrates. Due to its high porosity and hydrophobicity, Koster Restoration Plaster White allows for the damage free drying and de-salting of masonry even in the case of high salt contents.

DMS 197

25kg



KOSTER RESTORATION PLASTER GREY

Diffusion-open, salt-resistant restoration plaster. It can be applied manually or by machine. Very high porosity and hydrophobic properties. Prevents or reduces the formation of condensate. Free of light fillers. CE Certification according to DIN EN 998-1.

DMS 196

25kg



KOSTER UNIVERSAL CLEANER

Koster Universal Cleaner dissolves and removes soft and partially cured bituminous materials and epoxy resins. Not suitable for cleaning polyurethane based materials.

DMS 198

10 ltrs



KOSTER BD 50 PRIMER

Penetrates deeply into the substrate creating an excellent bonding bridge for the subsequent waterproofing.

DMS 902

2kg



KOSTER BD 50 COMPOUND

A solvent free, silicone compatible, sealing membrane and adhesive supplied as a thick paste.

DMS 903

10kg



KOSTER SUPERFLEECE

A distinctive non-woven, high strength polyester, reinforcing fabric for liquid waterproofing products.

DMS 360

10cm x 50m

DMS 354

1.05 x 50m



KOSTER BD FLEXIBLE TILE ADHESIVE

A universally applicable single component mineral flexible adhesive with very good adhesion to all mineral materials.

DMS 901

25kg

Koster BD Wet Room System can be purchased as a kit, with the above products - DMS 900



KOSTER COVER PLATES (FOR VINYL FINISHES)

We offer a choice of stainless steel or white plastic cover plates.

DMS 922	Polished Steel Cover Plate
DMS 921	White Powder Coated Dust Cap



KOSTER TILE SETS

Act as floorboard replacements with a pre-formed gradient to a square or linear drainage point which allows for the creation of a level access showering space creation of a level access showering space.

DMS 911	Brushed Stainless Steel Tile Set (95mm deep)
DMS 912	Polished Stainless Steel Tile Set (95mm deep)

Tiled Floor Shower Tray Former	0.8m x 0.8m	Waste 300mm x 400mm	DMS 913
Tiled Floor Shower Tray Former	0.9m x 0.9m	Waste 300mm x 450mm	DMS 914
Tiled Floor Shower Tray Former	1.05m x 1.05m	Waste 300mm x 525mm	DMS 915
Tiled Floor Shower Tray Former	1.2m x 0.9m	Waste 300mm x 600mm	DMS 916
Tiled Floor Shower Tray Former	1.2m x 1.2m	Waste 300mm x 650mm	DMS 917
Tiled Floor Shower Tray Former	1.3m x 0.9m	Waste 300mm x 750mm	DMS 918
Tiled Floor Shower Tray Former	1.5m x 0.9m	Waste 300mm x 850mm	DMS 919
Tiled Floor Shower Tray Former	1.7m x 0.8m	Waste 300mm x 400mm	DMS 920
Vinyl Floor Shower Tray Former	0.8m x 0.8m	Waste 300mm x 400mm	DMS 923
Vinyl Floor Shower Tray Former	0.9m x 0.9m	Waste 300mm x 450mm	DMS 924
Vinyl Floor Shower Tray Former	1.05m x 1.05m	Waste 300mm x 525mm	DMS 925
Vinyl Floor Shower Tray Former	1.2m x 0.9m	Waste 300mm x 600mm	DMS 926
Vinyl Floor Shower Tray Former	1.2m x 1.2m	Waste 300mm x 600mm	DMS 927
Vinyl Floor Shower Tray Former	1.3m x 0.9m	Waste 300mm x 650mm	DMS 928
Vinyl Floor Shower Tray Former	1.5m x 0.9m	Waste 300mm x 750mm	DMS 929
Vinyl Floor Shower Tray Former	1.7m x 0.8m	Waste 300mm x 850mm	DMS 930

ANCILLARIES



KOSTER 1C INJECTION PUMP

Electrical 1C injection pump for injecting of cracks and voids. It is suitable for the injection of all Koster PU injection materials (foams and resins). Operating pressure can be adjusted from 0 - 200 bar. The maximum delivery rate is approx. 2.2 l / min.

DMS 278



KOSTER BALL GUN

One-handed adjustable high-pressure injection gun for Koster Acrylic Gel Pump and Koster 1C Injection Pump. An alternative method to a classic ball valve application. Easy to use and is designed for a pressure of up to 250 bar.

DMS 249



KOSTER HAND PUMP WITHOUT MANOMETER

For small injection projects or areas which are difficult to access. Operating pressure 10 bar max., output approx. 2 m³ per pass.

DMS 394



KOSTER SUPERPACKER

The Koster Superpacker is suitable for pressure injections. The Koster Superpacker provides a very high contact pressure to the borehole due to the cone-shaped center of the tightening mechanism. Four fins and two ridges on the rubber gasket prevent rotation. It has a firmly mounted cone-head fitting for pressure injection.

DMS 406 13mm x 130mm (Conehead)

DMS 388 13mm x 85mm (Pan head)



KOSTER BALL VALVE

Part with grip head for 1C Injection Pump.

DMS 248



KOSTER SLIDE COUPLING

Slide Coupling

DMS 392



KOSTER GRIP HEAD

With 4 jaws for cone head fittings.

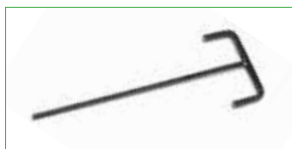
DMS 395



KOSTER SWIVEL JOINT

Swivel Joint for panhead fitting on Koster 1C Injection Pump.

DMS 393



KOSTER DEUXAN STIRRER/ANCHOR

Special stirrer for mixing 2-component polymer modified bitumen thick film sealants, e.g. Koster NB 4000 and Koster Deuxan 2C. Round connector Ø 12 mm for chuck.

DMS 175



KOSTER DISC STIRRER (FOR NB1 GREY)

Single paddle mixer with ring suitable for the mixing of NB1 and sealing slurries.

DMS 176



KOSTER NB1 BRUSH

Special brush with waved bristles for the application of materials with a paste-like consistency, e.g. Koster NB Sealing Slurries, Koster KD 1, etc.

DMS 177

400ml



KOSTER CAPILLARY RODS

Koster Capillary Rods are made of a special expanding cellulose, allowing uniform and accurate liquid injection. When using Koster Capillary Rods, bore holes do not have to be filled with Koster Borehole Suspension prior to injection. This saves the applicator the work of re-drilling boreholes.

DMS 230

45cm



KOSTER INJECTION LANCE

Injection lance with pan head fitting for gel injections.

DMS 390

18 x 300mm

DMS 391

18 x 550mm



KOSTER SUCTION ANGLE

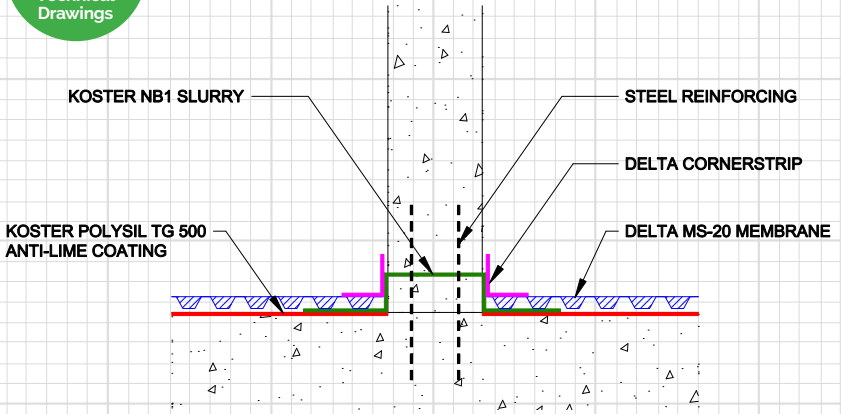
Plastic angle for the pressureless and material saving installation of horizontal barriers against rising damp (wicking moisture) with the Koster Suction Angle System. Re-usable.

DMS 232

STRUCTURAL INTERNAL WALL CAPILLARY BREAK

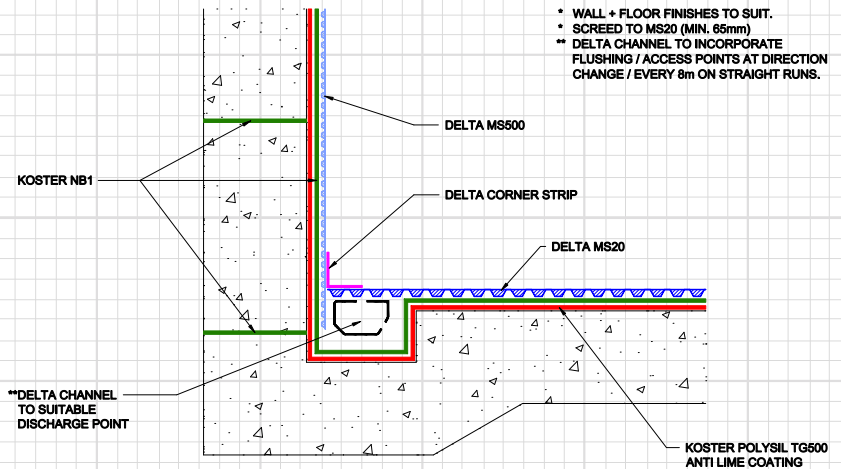


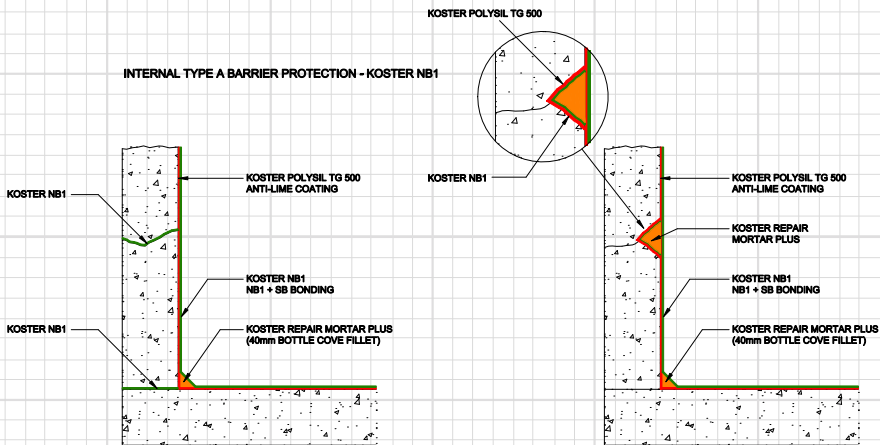
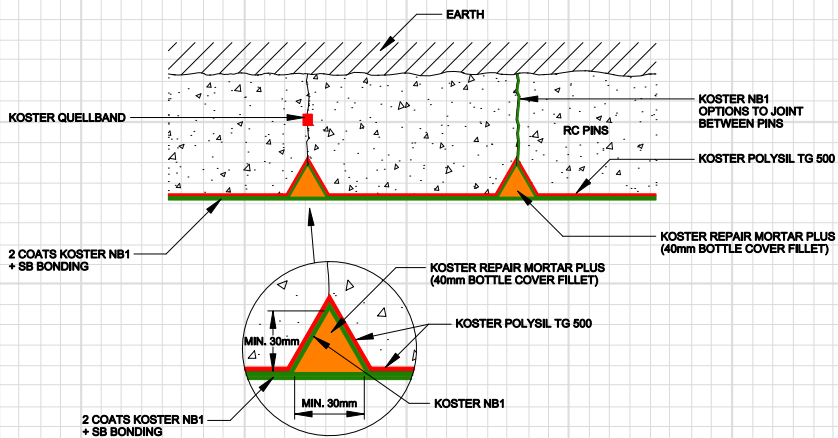
STRUCTURAL INTERNAL WALL CAPILLARY BREAK



INTERNAL COMBINED SYSTEM - NB1/DELTA MS

COMBINED WATERPROOFING - INTERNAL
KOSTER NB1 / DELTA CAVITY DRAINAGE





COVERAGE RATES AND MEASUREMENTS

PRODUCT	SIZE	COVERAGE	APPLICATION
NB 1 Grey	25kg	8m ²	2 coat application.
Deuxan 2C	32kg	5.1m ²	2 coat application.
NB 4000	25kg	6m ²	2 coat application using 6mm notched trowel.
SB Bonding Emulsion	5 litres	1 tub to 2 1/2 bags of NB1 Grey Slurry, 800ml SB to 25kg of Repair Mortar Plus.	x
Bitumen Primer	10 litres	50-60m ²	1 coat application
Polysil TG 500	10kg	66m ²	1 coat application. (Use standard sprayer)
21	20kg	7m ²	2 coat application Tools for application – Block brush, roller or trowel. (Glass fibre mesh embedded in first wet coat)
Repair Mortar Plus	25kg	10 linear meters	40mm curved fillet for 25kg bag
KBE Liquid Film	24kg	Water proofer - 12m ² (neat) - 24m ² Primer (diluted) – 48m ²	2 coats to be applied if used as a water proofer.
KBE Liquid Film	6kg	If used as a primer (diluted) – 12m ²	2 coats to be applied if used as a water proofer.
NB Elastic Grey	33kg	6m ²	2 coat application
SL Premium	25kg	1.5kg/m ² ; Per mm layer thickness	x
Restoration Plaster Grey & White	25kg	Approx. 12kg/m ² per cm layer thickness	Each 25kg bag is mixed with 5.0 ltrs to 6.0 ltrs of clean potable water. Put 5 ltrs of water in a clean mixing vessel and add the powder in portions while continually mixing using a slow speed mechanical compulsory mixer (under 400 rpm).

APPLICATION THICKNESS	CONSUMPTION	MIXING
Using a block brush around 0.75mm per coat, total thickness 1.5mm.	6 part water, 1 to 2 Koster SB Bonding Emulsion.	Use a disc stirrer for mixing
3mm per coat (final thickness once cured 4mm.)	Add powder to the liquid and mix for 3 minutes.	Use anchor paddle for mixing
3mm per coat (final thickness once cure 4mm)	Add powder to liquid and mix for 3 minutes.	Use anchor paddle for mixing
x	x	x
x	Approx. 150 - 200ml/m ²	x
x	Approx. 0.1 - 0.25kg/m ² depending on substrate, strongly absorbent substrates may require more.	x
2mm per coat	Add powder to liquid can add up to 16 litres of water to every 20kg tub. Mix for 3 minutes.	Use anchor paddle for mixing
x	x	2.5 – 3 litres of water and 1 – 2 SB Bonding. Mix for 3 minutes.
x	1 - 2.5kg / m ² As primer: approx. 250g / m ² . Consumption varies depending on absorbency of the substrate. For waterproofing approx. 0.5kg - 1kg per coat. For seam sealing: approx. 1.0kg / (m ² * mm layer thickness).	Stir well before application
x	1 - 2.5kg / m ² As primer: approx. 250g / m ² . Consumption varies depending on absorbency of the substrate. For waterproofing approx. 0.5kg - 1kg per coat. For seam sealing: approx. 1.0kg / (m ² * mm layer thickness).	Stir well before application
x	Approx. 3.6 - 4.5kg/m	Mix part A with Part B
x	Approx. 1.5kg / m ² / mm layer thickness	x
x	x	x

COVERAGE RATES AND MEASUREMENTS CONTINUED

PRODUCT	SIZE	COVERAGE	APPLICATION
KB Pox Adhesive	5kg	Used with Joint Tape 20 – 5meters (x4 tins per roll) Used with Joint Tape 30 – 3.3 meters (x6 tins per roll)	Koster KB-Pox Adhesive should be mixed at a minimum temperature of + 10 °C. Pre-mix each component separately. Add the B to the A component and mix until the material has a uniform, streak free appearance.
Repair Mortar NC	25kg	1.3 m ² per cm layer thickness	If applying the maximum layer thickness of 5 cm the surface should also receive a scratch coat made from Koster Repair Mortar NC with 5% Koster SB Bonding Emulsion added to the mixing water.
Façade Cream	5 litres	20 – 25m ²	Applied in one work-step by brushing, rolling or spraying (with an airless spraying device) the material onto the prepared substrate.
Fine Plaster	25kg	14kg / m ² per mm layer thickness	Koster Fine Plaster is applied with a 6 or 8 mm toothed trowel, and is trued using a feather edge, a straight edge, or a long float trowel.
Sewer & Shaft Mortar	25kg	15m ² per cm layer of thickness	Mix 25kg of Koster Sewer and Shaft Mortar with 5.0 – 5.5 l water.
BE Rainproof	5kg	15m ²	1 coat application
KD System Pack	18kg	4-5m ²	The three components of the Koster KD System are to be applied according to the data sheets.
Z1 & Z2	1kg	x	Brush applied
MS Flex Foil	8kg 25kg	8kg - 4m ² 25kg – 12.5m ²	2 coat application brush, roller, trowel, or other customary mason's tools.
Quellband	6 x 5m lengths	30 liner meters	Koster Quellband can be used in horizontal and vertical joints. Koster Quellband needs to be covered with at least 8 cm of concrete on all sides to reach the necessary expansion pressure.
Delta Water Based Epoxy	2.5 litres	8.75m ²	2 coat application brush, roller or airless sprayer
	5 litres	17.5m ²	
Pro Liquid Gas Barrier	15kg	7.5m ²	2 coat application brush, roller or airless sprayer

APPLICATION THICKNESS	CONSUMPTION	MIXING
Koster Joint Tape 20 is embedded on each side at least 40mm. Koster Joint Tape 30 is embedded on each side at least 50 mm. The layer thickness of the Koster KB-Pox Adhesive should be approx. 2 mm.	Koster Joint Tape 20: 1kg / m, Koster Joint Tape 30: 1.5kg / m	For mixing use a slow rotating drill with the proper mixer, for example a BEBA type mixer or a box mixer.
x	Approx. 19kg/L void as repair mortar; approx. 19kg/m ² ; per cm of layer thickness of the plaster	4.2 ltrs water. Place ¾ of the liquid into a mixing vessel of sufficient size and add the powder in portions while continually mixing with a slow rotating double paddle electrical mixer. Add the remaining liquid as needed during mixing to adjust the mortar to the desired consistency. Mix until a homogeneous, lump-free consistency is reached
x	Approx. 0.1 - 0.25 l / m ² depends on absorpency of the surface.	x
x	x	Each 25kg bag is mixed with 6.0 ltrs to 7.0 ltrs of clean potable water.
The minimum thickness for a water tight coat is 4 mm, maximum thickness is 3 cm per layer	Approx. 18kg/L void as repair mortar; Approx. 18kg/m ² ; per cm layer thickness	Mix until a homogeneous, lump-free consistency is reached. Minimum mixing time is 3 minutes.
x	Approx. 0.2kg/m	x
x	x	x
x	Approx. 800g / m ² (per coat)	Mix with clean potable water (in a mixing ratio by weight of 2 parts of Koster Z1/Z2 to 1 part of water) to a creamy consistency.
x	Approx. 1.5 – 2.5kg / m ²	x
x	1 m / m	x
x	Add pack B to pack A and add water to fill line	x
A minimum dry coated thickness of 10mm is needed to provide a Gas Barrier.	x	x

RESIN USAGE CHART

MATERIAL	PACKAGING SIZE	VISCOSITY (MIXED)	REACTION START AND END TIME	POT LIFE	FULL CIRCLE
POLYURETHANE					
KB Pur 2 IN 1	25kg combi unit	250mPa	45 secs - 3 mins	45 mins	24 hrs
KB Pur IN 7	27.5kg combi unit	300mPa	20 secs - 15mins	6 hours (without water contact)	
KB Pur IN 5	10kg combi unit	155mPa	n/a - non foaming	4 hours	
KB Geo Foam	46kg combi unit	500mPa	3 mins - 35 mins	3 mins	35 mins
EPOXY					
KB Pox IN	1kg or 6kg combi unit	170mPa	n/a	80 mins	2 hours
CEMENTITIOUS					
Micro Grout 1C	24kg bag	Mortar based	n/a	100 mins	min 24 hours
ACRYLIC					
Injection Gel G4	21.4kg combi unit	4mPa	4 mins - 15 mins	24 hours	15 mins
Injection Gel S4	21.1kg combi unit	30mPa	from 17 seconds up to 3 mins	12 hours	15 mins
Injection Gel J4	21.4kg combi unit	35mPa	5 mins - 20 mins	12 hours	12 hours

KOSTER KB PUR 2 IN 1

Single Component Polyurethane that requires a two stage injection. Packers must be re-injected maximum 15 minutes after first injection. When injected into water bearing cracks, the material foams and uses up the water. Upon re-injection the material displaces the foam and leaves a solid body and elastic-permanent-seal. Packers are to be spaced between 100-150mm either side of the crack and drilled at an angle to intersect the centre of the crack. Installation advice in the 'Crack Injection Brochure'. If a fast installation is required, use Koster One Day Site Packers for injection purposes as the packer ends can be removed immediately after injection. Mix the two material components together prior to pouring into material hopper. Minimum mixing time - 1 minute.

KOSTER KB PUR IN 7

Single Component Polyurethane that activates very quickly upon with water. It expands between 20 and 30 times to use up the water within a crack/void and sets to form an elastic foam. Ideal for use where there are voids anticipated within or behind the concrete/pile, etc. also if there is a heavy or fast flow of water observed. Mix the two material components together prior to pouring into material hopper. Minimum mixing time - 1 minute.

KOSTER KB PUR IN 5

Single Component Polyurethane for sealing dry/moist voids. Ideal for injection hoses or where slight movement is anticipated. A very long curing time coupled with a low viscosity, the material can travel a long distance before cure. Mix the two material components together prior to pouring into material hopper. Minimum mixing time - 1 minute.

KOSTER GEO FOAM

Twin Component Polyurethane with large expansion rate. Injected through a twin component pump - do not mix the material parts prior to injection! With a twin component pump the material components are processed separately and do not combine until the mixing head. You can also mix the two components together and pour the material into a void. Actual packer placement, blowhole allowance, etc to be determined job per job. You must allow for blowholes in your design when injecting into voids, due to the expansion rate of the material there is a high exotherm which must be exhausted. Ideal for void filling and ground stabilisation.

CONSUMPTION	SUITABLE PUMP	SUITABLE PACKERS	COMMON USES	CLEANER
1.1kg/L void	Koster 1C Injection Pump	Koster Superpackers or One Day Site Packers	Actively weeping cracks and construction joints - wet or/and dry cracks - wall to floor joints	Koster KB Pur cleaner
0.1kg/L void	Koster 1C Injection Pump	Koster Superpackers	Heavily leaking cracks - leaking piles - anticipated waterfilled voids - fast flows	Koster KB Pur cleaner
1.1kg/L void	Koster 1C Injection Pump	Koster Superpackers or One Day Site Packers	Actively weeping cracks and construction joints - wet or/and dry cracks - wall to floor joints	Koster KB Pur cleaner
0.1kg confined/0.1kg unrefined	Twin Component Pump or Mixed & Poured	Koster Lamella Packers	Ground stabilisation - void filling	Koster KB Pur cleaner
1kg/L void	Koster 1C Pump or Vacuum Pump or Mixed & Poured	Koster Superpackers	Structural stabilisation in concrete - structural crack filling - stabilisation	Koster Universal cleaner
1.6kg/L void	Mortar Pump	Koster Lamella Packer	Structural repairs - void filling - ground stabilisation	Water
40kg/m ² - curtain Injection	Koster Acrylic Pump	Koster Injection Gel packer	Curtain/Area Injection ground stabilisation - active leak crack repair	Water
Depends on application	Koster Acrylic Pump	Koster Injection Gel packer	Fast leak sealing - area Injection	Water
Depends on application	Koster Acrylic Pump	Koster Injection Gel packer	Injection into expansion joints	Water

KOSTER KB POX IN

Twin Component Epoxy, which can be injected into structural cracks, poured into open cracks (saturation) or drawn into leak concrete using vacuum methods. Very low viscosity and high Compressive Strength and can be used to seal structural cracks down to 7 microns.

KOSTER MICRO GROUT 1C

Mortar based injection material. Mix with water and pump using a suitable grout pump. Used for structural cracks and voids - dry or damp areas only. Seal active water leaks first using above polyurathene materials. Good flow rate and strong compression characteristics. Also used for ground stabilisation and anchor grouting.

KOSTER INJECTION GELS

These are acrylic based injection resins, contain no VOC's and will not contribute to corrosion of re bar, steels etc. Considered as a 4 component material (Parts - A1, A2, B and the forth being water) the components are mixed to create two parts (A1 + A2, B + water) which are pumped through Koster Acrylic Gel pump. Used for curtain injection, area injection, crack injection and injection into leaking expansion joints (J4). They have a very low viscosity and can be injected at a very low pressure. The material can also be used for consolidating ground - even where flowing is anticipated.

Please read individual and up-to-date material data sheets and/or seek advice prior to specification if unsure. The installation guidance, packer placement material consumption can alter on a job by job basis depending on a wide variety of characteristics including crack width, amount of water, anticipated voidage, material use. The above guidance is not definitive as injection works are never standard, please make contact if you have any questions.

NATIONAL CLASS - COLD LIQUID APPLIED WATERPROOFING

Building Regulations Part B (Fire Safety) part B4 covers the requirement for external walls and roof of a building or structure to adequately resist the spread of fire over the walls and roof of the structure, and between one building to another. Roof coverings can be found within Section 10 which includes layering of material. With reference to flat roofs, expected covering will usually consist of the deck, a vapour control layer, insulation, waterproofing membrane(s), and any other layers and areas.

The principal amendment of the AB D edition is in relation to external fire performance of roofs. This is no longer the national classification system BS 476-3:2004, but the European Classification System BS EN 13501-5. The European Class Ratings comes with five ratings: ^BROOF(t4), ^CROOF(t4), ^DROOF(t4), ^EROOF(t4) and ^FROOF(t4).

It should also be noted that classifications are for all types of roof systems.

The classification determines proximity of the roof to boundaries of adjacent buildings. Advantages of the ^BROOF(t4) classification is using a roofing system which complies to the ^BROOF(t4) classification no minimum distance is required between structures.

Lower external fire classifications require adjacent buildings and/or structures to be further in proximity. To meet Building Regulations for fire, installers will be required to prove that the system has a valid test certificate. Third party testing facilities such as the BRE have established through extensive fire testing on a worst-case scenario basis (timber decking), resolving the requirement for testing on concrete and steel decks.

National Class	European Class	Minimum distance from any relevant boundary (England)	Minimum distance from any point on relevant boundary (Scotland)
AA, AB, AC	BROOF (t4)	Unrestricted and can be used anywhere on the roof	Low vulnerability (<6m)
BA, BB, BC	CROOF (t4)	At least 6m of the boundary	Medium vulnerability (6-24m)
CA, CB or CC	DROOF (t4)	At least 6, 12 or 20m of the boundary depending on the building type and use	Medium vulnerability (6-24m)
AD, BD or CD	EROOFF (t4)	At least 6, 12 or 20m of the boundary depending on the building type and use	High vulnerability (>24m)
DA, DB, DC or DD	FROOF (t4)	At least 20m of the boundary depending on the building type and use	High vulnerability (>24m)

FIRE RATINGS TYPE C MEMBRANES

Reaction to fire, often called the Euroclass system gives building products a classification. The 'Reaction to fire' classes test three properties of the building material: spread of fire, smoke intensity and burning droplets. Most building materials sold on the European market must be assigned a file indicating its fire resistance based on a Euroclass rating system. There are 7 Euroclasses of reaction to fire performance for construction products which extend from A1 to F.

Euroclasses and the target safety level	
Euro-class	Target safety level
A1	No contribution to fire even under fully developed fire conditions
A2	Only negligible contribution to fire even under fully developed fire conditions; no spread of fire from the area of the primary fire in the fire development phase
B	In the fire development phase, no spread of fire from the area of the primary and very limited contribution to the fire
C	Under the conditions of a fire in the development phases, very limited spread of fire and limited energy release and ignitability
D	Under the conditions of a fire in the development phases, limited spread of fire and acceptable energy release and ignitability
E	In the case of a very small fire (match flame) acceptable reaction to fire (ignitability, flame spread)
F	No requirements concerning the reaction to fire
Additional assessment classes for smoke development and burning droplets/particles	
Smoke development	s3 (there are no restrictions regarding smoke development) s2 (the fully released amount of smoke, and the rise in smoke development are restricted) s1 (stricter criteria than for s2 must be fulfilled)
Burning droplets/particles	d2 (there are no restrictions) d1 (burning droplets not longer than the defined time) d0 (dripping fire debris is not permitted)

TRAINING



We are proud to be able to offer a wide range of Structural Waterproofing Courses

Structural waterproofing is a term used to describe the methods for preventing/and or managing groundwater entering a structure that is below ground. Delta's Structural Waterproofing Training Course(s) are designed specifically for those working in the structural waterproofing, damp proof, flood resilience and ground gas protection sector. We provide specialist training to support your professional development. Courses can be delivered at your own work premises, on-site or at our dedicated training centre in Epping, Essex.

Delta Training Course(s) are suitable for:

- Architects
- Anyone involved in retrofit and new build basements
- Those seeking to refresh product application and knowledge
- New employees (for those already registered as Delta Registered Installers)
- Anyone who works within the environments of design, planning and installation of any structural waterproofing projects below ground
- Anyone wishing to expand their overall knowledge of waterproofing and wish to have a better understanding of BS 8102:2022
- Those wishing to form a better understanding of water management in basements and below ground structures in relation to waterproofing
- Those seeking to begin the path to become a Delta Registered Installer- stage 1, considered high standing in the industry.

Flexibility with you in mind



1. **Book a course delivered by our experts**



2. **We provide materials and certificates of attendance**



3. **You develop your skills and knowledge**

We work with one aim in mind: to help you understand water ingress, principles of waterproofing design, reducing risk, product specification and correct product installation.

Topics can be run as a short learning lesson (such as a 45-minute CPD) or a more comprehensive full day course. Choose a one-off session to service an immediate need or mix and match subjects to build a long-term training programme to suit your operational needs.

We'll provide all the materials and demonstrations and certificates of attendance.

To enquire about any of our courses simply email info@deltamembranes.com or call **01992 523 523**

Course booking forms are available for download on our website

<https://www.deltamembranes.com/training>.

WWW.DELTAMEMBRANES.COM

ON SITE SUPPORT



Delta's On-Site Assistance/Site Team Services is part of your team!

Delta's On-Site Assistance/Site Team Services (DOSA/DSTA) is a specialist team who provide waterproofing solutions and site support services to you. We add value to our customers through our ability to mobilise experienced and qualified personnel in delivering compliant solutions. Our dedicated team of DOSA/DSTA's compliment Delta's Technical Team in providing you with resources to help you deliver a robust and reliable waterproofing solution throughout the installation process.

Whatever your reason, our knowledgeable and friendly DOSA/DSTA support team are available to help you meet your waterproofing goals. Our experienced support team has a great deal of ability, as well as a multitude of industry accreditations. They are well placed to provide you with the on-site support service that you need to keep your install operational and on track to meet your goals. We know best practice and are in a position to help you implement it.

How we can help

Our On-Site Assistance/Site Team Service allows your company to get on with the job. We understand what's required in keeping your project running smoothly, efficiently, and productively.

Delta's On-Site Assistance/Site Team Services:

- Correct product mixing
- Correct product application
- Techniques in product application
- Reliable and transparent support
- Quick and effective troubleshooting approaches
- Uncover fresh perspectives
- Ensuring best practice throughout a project.

Sharing skills and experience to make your project a success!

We are dedicated to delivering customer satisfaction and are proud of our reputation for delivering outstanding approaches in the waterproofing industry.



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