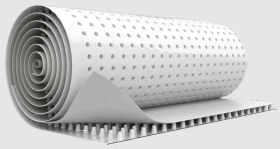
HIFLOW DRAINAGE CELL.



Technical Data Sheet | **HDPE Dimpled Drainage Sheet with Bonded Non-Woven Geotextile Filter** | **Issue date: 12 November 2026**

Description

HIFLOW DRAINAGE CELL is a high-density polyethylene dimpled drainage sheet bonded to a non-woven geotextile filter, laid over a cured waterproofing membrane to create a continuous drained cavity between the structure and the retained ground or growing medium. The dimpled core carries water freely to the drainage line while the geotextile face filters out fines that would otherwise blind the cavity, so the system keeps working long after a loose aggregate drain would have silted up.

Relieving hydrostatic pressure at the membrane face is the primary structural duty; the secondary duty is attenuation — excess water is held in the void and released gradually into the drainage system, easing peak load on stormwater infrastructure where heavy rainfall would otherwise overwhelm it. It provides a stable, free-draining base for green roofs, podium decks and planter boxes, preventing waterlogging and soil erosion while plants establish. HDPE construction is lightweight, durable and resistant to UV, chemicals and weathering. Supplied in 15 m × 1.5 m rolls.

Advantages

- Relieves hydrostatic pressure at the waterproofing membrane face.
- Bonded non-woven geotextile filter prevents fines blinding the drainage void.
- Attenuates stormwater — excess water is stored in the void and released gradually.
- Provides a stable, free-draining base for green roofs, podium decks and landscaping.
- Prevents waterlogging and soil erosion in planted areas.
- Lightweight yet durable HDPE construction — easy to handle and install.
- Resistant to UV radiation, chemicals and weathering.
- Also serves as a protection layer for the membrane during backfill.
- Cost-effective — high capacity and durability reduce ongoing maintenance and repair.

Uses

- Retaining walls and basement walls.
- Planter boxes and landscaped areas.
- Green roofs and roof gardens.
- Podium decks.
- Underground car parks.
- Protection layer over FORSPEC waterproofing membranes during backfill.
- Any location where drainage and hydrostatic pressure relief are required behind or beneath a waterproofed structure.

Compliance Status

Performance values for HIFLOW DRAINAGE CELL are typical FORSPEC R&D values, asterisked, with the test method stated against each value in the Technical Data table. Flow capacity against project rainfall intensity is the design responsibility of the specifier.

contact.

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Technical Data

Certified values are stated against their governing report. All other values are typical R&D characteristic values and are asterisked.

PROPERTY	VALUE	BASIS
Product type	HDPE dimpled drainage sheet with bonded non-woven geotextile filter	—
Material	High-density polyethylene	—
Colour	White	—
Nominal thickness	15 mm	FORSPEC R&D to ISO 9863-1 *
Compressive strength	250 kPa	FORSPEC R&D to ASTM D6364 *
Flow rate at hydraulic gradient i = 1.0 under 100 kPa	> 150 L/min/m	FORSPEC R&D to ASTM D4716 *
Heat resistance	70°C for 1.5 hours	*
Roll length	15 m	—
Roll width	1.5 m	—
Roll area	22.5 m^2	—
Roll weight	37 kg	—
Installation temperature	+5°C to +40°C	*
UV and chemical resistance	Resistant to UV radiation, chemicals and weathering	*
Shelf life	Indefinite when stored dry, shaded and clear of point loading *	*

* Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Coverage and Yield

MEASURE	VALUE	BASIS
Roll area	22.5 m^2 — 15 m × 1.5 m	—
Roll weight	37 kg	—
Nett coverage per roll	Roll area less lap allowance *	Deduct the specified lap on every side and end
Lap allowance	Approx. 10% of gross roll area *	Typical bay layout
Wastage allowance	Approx. 10% *	Cutting, corners, penetrations and terminations
Take-off basis	Measured area plus 20% for laps and wastage *	Standard sheet take-off

Quantity take-offs must allow for laps, cutting around penetrations and terminations, and approximately 10% wastage. * Typical R&D characteristic values, not for engineering design without written FORSPEC confirmation.

Limitations

- Not a waterproofing membrane — HIFLOW DRAINAGE CELL drains and protects; the waterproofing duty belongs to the FORSPEC membrane beneath it.
- Must be laid over a fully cured, flood-tested and inspected waterproofing membrane — never over an uncured or untested membrane.

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Limitations (continued)

- Must discharge to a functioning drainage line — a drainage cell with no outlet becomes a reservoir against the structure.
- The geotextile filter face must be oriented towards the retained soil or growing medium; installed the wrong way round the cavity will blind with fines.
- Do not expose the geotextile face to contamination, mud or slurry during installation.
- Do not install over sharp projections, protruding fixings or debris that could puncture the membrane beneath.
- Flow capacity must be checked against the project rainfall intensity and catchment by the specifier — the stated flow rate is a product property, not a drainage design.
- Do not exceed the compressive strength in service — confirm the imposed load from backfill, growing medium and traffic against the stated value.
- Backfill must be placed and compacted in a manner that does not displace or crush the cell.
- Not a structural layer and not a substitute for engineered subsoil drainage where that is specified.

Surface Preparation

- Confirm the FORSPEC waterproofing membrane is fully cured, flood tested where required, inspected and signed off before any drainage cell is laid.
- Prepare the wall or deck surface by cleaning it and confirming it is free of debris and any sharp or protruding objects.
- Confirm the drainage outlet, agricultural line or discharge point is installed, connected and free flowing.
- Confirm falls to the drainage line are set out and correct.
- Protect the membrane from foot traffic and dropped tools throughout installation.

Application and Film Build

- Cut the HIFLOW DRAINAGE CELL to the required length for the wall or floor installation.
- Unroll the sheet onto the prepared membrane with the geotextile filter face towards the retained soil or growing medium and the dimpled core against the membrane.
- Secure the sheet to the wall using the approved fixing method, fixing only above the waterproofing termination line — never penetrate the membrane.
- Lap adjoining sheets in the direction of flow and secure the lap so it cannot open during backfill.
- Carry the geotextile continuously across every lap so no open joint is left for fines to enter.
- Terminate the cell into the drainage line so that collected water discharges freely.
- Cut neatly around penetrations and terminations and dress the geotextile to close the opening.
- Inspect the installed sheet for displacement, open laps, punctures and blocked outlets before backfill.
- Place and compact backfill in controlled layers so that the cell is not displaced, crushed or torn.

Drying, Curing and Testing Times

All times below are measured at 25°C and 50% RH. Low temperature, high humidity, poor ventilation and substrate porosity extend every stage — verify the primer is fully dry on site before overcoating.

STAGE (AT 25°C, 50% RH)	TIME
Membrane cure and flood test	Complete and signed off before installation
Installation	Immediately after membrane sign-off *
Inspection before backfill	Immediately after installation
Backfill placement	After inspection sign-off *
Drainage commissioning	After backfill, confirm free discharge at the outlet *

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Clean Up

Remove offcuts, release liner and packaging immediately and keep the work area clear. Tools require no solvent cleaning. Where a primer, adhesive or liquid membrane has been used alongside the sheet, clean tools according to that product Technical Data Sheet while the material remains wet.

Container and Waste Disposal

Dispose of offcuts, release liner, cores and packaging as general construction waste in accordance with State and local requirements. Do not discharge primer or membrane residues into drains, soil or waterways. Refer to Section 13 of the SDS of any primer or liquid product used with the sheet.

Quality Records

Record the batch numbers and roll identifiers of all HIFLOW DRAINAGE CELL used, the membrane system beneath and its cure and flood test sign-off, sheet orientation confirming the geotextile face direction, fixing method and fixing locations relative to the termination line, lap direction and lap security, drainage outlet connection and free-discharge confirmation, pre-backfill inspection sign-off, and the backfill method and layer depths, as part of the project quality assurance records.

Storage

Store rolls flat or upright in original packaging in a dry, covered area, clear of point loading and protected from prolonged direct sunlight and mechanical damage. Keep the geotextile face clean and free of mud and contamination. Shelf life: indefinite when stored as specified.*

Safety Precautions and First Aid

Refer to the current Safety Data Sheet before use. The product is supplied in a cured, non-reactive form and is not classified as hazardous in normal handling. The principal hazards in installation arise from cutting tools, from working at height and in confined below-ground spaces, and from the primers, adhesives and membranes used alongside it. Wear protective gloves, eye protection and protective clothing. Use a sharp blade with a cutting board and cut away from the body. Where work is below ground or in a confined space, apply the site confined-space entry procedure — test the atmosphere, provide mechanical ventilation and maintain a standby observer. Do not eat, drink or smoke when handling; wash hands before breaks and after work.

First aid — Eyes: rinse cautiously with water for several minutes; remove contact lenses if easy to do; continue rinsing and seek medical attention if irritation persists. Skin: wash with soap and water; for primer or membrane contact follow the first aid directions in that product SDS. Inhaled: move to fresh air and keep comfortable. Swallowed: rinse mouth and seek medical advice. Cuts from cutting tools: clean the wound, apply a dressing and seek medical attention where the wound is deep or contaminated. POISONS INFORMATION CENTRE: 13 11 26 (Australia-wide, 24 hours). In an emergency, dial 000. KEEP OUT OF REACH OF CHILDREN. Read the Safety Data Sheet (SDS) before use — available at www.forspec.com.au.

Warranty

Standard Product and Performance Warranty: Forspec Protective Coatings Pty Ltd as Trustee for Forspec Protective Coatings (ABN 11 204 033 631) warrants that HIFLOW DRAINAGE CELL will be free from manufacturing defects and will not fail under normal usage for a period of ten (10) years from the date of purchase, when installed and used strictly in accordance with this Technical Data Sheet and Forspec's written instructions. This warranty covers the supply of the product only; it does not cover installation, application or workmanship. Remedies are limited, at Forspec's discretion, to replacement of the defective product (or defective portion) or a refund of the purchase price. The full terms, conditions and exclusions are set out in the Forspec Standard Product and Performance Warranty, available at www.forspec.com.au — key conditions include application by a suitably qualified and, where required by law, licensed applicator; use within shelf life; and installation as part of a Forspec approved system without non-approved third-party products.

Project and system warranties: extended project-specific warranties are available at the request of the applicator and must be applied for using the Forspec Warranty Request Form prior to commencement of works. Issue is subject to Forspec approval and is conditional on the use of the complete specified FORSPEC system, application in strict accordance with the current TDS by suitably qualified applicators, and completion of the project quality records described above. The warranty period and terms are as stated in the issued warranty certificate.

Claims: notify Forspec in writing within thirty (30) days of discovery of the alleged defect and within the warranty period, by post to 22/872 Canterbury Road, Roselands NSW 2196 or by email to info@forspec.com.au, including proof of purchase, installation details (date, location,

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Warranty (continued)

installer), a description of the defect with supporting evidence, and your contact details. Forspec may inspect the site, perform testing and collect samples before determining a claim.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Data Sheet Currency

This Technical Data Sheet (TDS) and the corresponding Safety Data Sheet (SDS) are subject to revision as necessary to ensure compliance with relevant Australian Standards and to incorporate technological advancement. Read the most current versions before use, as application and performance data may be updated. For the latest technical information, contact Forspec Protective Coatings on (02) 8021 3517 or info@forspec.com.au. The information provided is representative and does not serve as a comprehensive specification. For specific projects, consult directly with Forspec Protective Coatings for tailored specifications. This data sheet was issued on 12/11/2026 and is valid for three years from the date of issue unless superseded by a later revision — always confirm the current version at www.forspec.com.au before use.

Conditions of Use, Product Disclaimer, and Statement of Responsibility

1. Accuracy of information. The information in this document is provided in good faith by Forspec Protective Coatings Pty Ltd as Trustee for Forspec Protective Coatings (ABN 11 204 033 631) ('Forspec Protective Coatings') and is, to the best of its knowledge, true and accurate at the date of issue. Forspec Protective Coatings reserves the right to amend this document without notice as part of its continuous product development.

2. Suitability and user responsibility. Substrates, site conditions, workmanship and conditions of use are beyond Forspec Protective Coatings' control. No representation or warranty is made as to the suitability of the product for any particular application. The user must determine the suitability of the product for the intended use by their own assessment and, where appropriate, testing prior to application.

3. Currency of document. It is the responsibility of the customer and the applicator to confirm that this document and the corresponding Safety Data Sheet are the current versions, available at www.forspec.com.au. This document supersedes all previous versions.

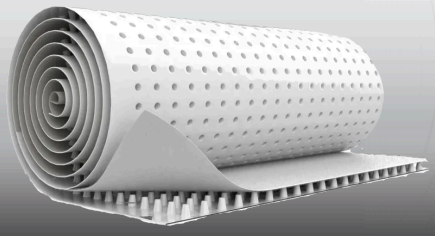
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6. Limitation of liability. To the fullest extent permitted by law: (a) all other warranties, conditions and representations, express or implied, are excluded; (b) the total liability of Forspec Protective Coatings for any claim arising out of or in connection with the supply or use of the product is limited, at its election, to the replacement of the product, the supply of an equivalent product, or the refund of the purchase price paid; and (c) Forspec Protective Coatings will not be liable for any indirect, special or consequential loss, including loss of profits, arising from the use of, or inability to use, the product.

7. Advice and recommendations. Any advice, recommendation, information or assistance provided by Forspec Protective Coatings, whether verbal or written, is given in good faith but without liability beyond that stated in clause 6.

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