

## Geocomposite HDPE drainage and protection membrane

### Uses

Proofex Sheetdrain is an HDPE cusped drainage sheet, available in available in 2 sizes: 8mm for depths up to 6m and 10mm for depths up to 20m. It is fixed to walls and roofs of structures to provide a filtered, drainage plane that will route ground water and gases away from the structure, utilising subsoil drains to link with the site drainage system. Proofex Sheetdrain reduces water pressure on structures and the possibility of water ingress and can be effectively used in conjunction with other waterproofing systems.

Proofex Sheetdrain can also be used as protection to a sheet membrane against physical damage from backfill operations. It is an effective alternative to traditional stone 'French' drains providing improved drainage performance.

Where directly cast concrete sub-structure walls need to be drained, Proofex Sheetdrain may be used as a lost shuttering liner.

Proofex Sheetdrain is effective in constructing basements, retaining walls, service ducts, lift pits and subways with and without Proofex sheet membrane, allowing construction to BS 8102 :2009.

Proofex Sheetdrain provides filtered drainage and enhanced protection when used with Proofex waterproof membranes on reservoirs, podia and elevated slabs.

### Advantages

- Cost effective - no need for up to 500mm thick stone drainage layer behind retaining walls
- Easy site application
- Reduced environmental impact - no need for vehicular removal and transportation of spoil off site and subsequent replacing with expensive stone drainage layer
- High flow rate (water and gas)

### Properties

	Proofex Sheetdrain 80	Proofex Sheetdrain 100
Membrane core:	8mm HDPE single cusped	10mmHDPE single cusped
Geotextile filter:	Non-woven Polypropylene heat bonded	
Geotextile water permeability (EN ISO11058):	100 L/m <sup>2</sup> /s	85 L/m <sup>2</sup> /s
Flow capacity (EN ISO 12958):	1.65 L/m/s under 20kPa	3.5 L/m/s under 20kPa
Static puncture CBR (EN ISO 12236):	1350N	1400N
Tensile strength (EN ISO10319):	10KN/m	9KN/m
Compressive strength (EN ISO25619-2)	200KN/m <sup>2</sup>	550KN/m <sup>2</sup>

### Application instructions

#### Fixing

Proofex Sheetdrain should be fixed using Hilti IZ 8x70 Fixings, or similar, at a rate of 1 per metre<sup>2</sup> or when applied to a membrane with Proofex Engage Detail Strip.

#### Roll end joints

Pull back the geotextile fabric 50mm from one side of joint, and overlap the HDPE cores. Over lap the geotextile fabric. Geotextile should be laid in direction of flow to prevent ingress of fine material.

#### Roll edge joints

Butt the HDPE cores together and using the geotextile selvedge, overlap the geotextile a minimum of 40mm.

#### Drainage connection

Pull back sufficient geotextile fabric to wrap around the drain. Cut back the HDPE core to an appropriate length and wrap geotextile fabric around drain.

#### Top closure

Pull back the geotextile fabric 10mm. Cut back the HDPE core by 50mm and wrap the geotextile fabric over the exposed end to prevent ingress of backfill.

# Proofex sheet drain

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## Backfilling

Backfilling must be free from any sharp objects or debris, which could damage the Proofex Sheetdrain. It should not contain rocks or boulder larger than 50mm. This must be placed against the Sheetdrain in 300mm layers compacting to 85% modified Proctor. Backfilling should be in direction of laying of strip.

## Ancillary materials

\*Proofex Detail Strip

Hilti IZ 8x70 fixings

\* Available from Fosroc

## Limitations

Proofex Sheetdrain should not normally be used in saturated clays at depths greater than 20m for 10mm size and 6m for 8mm size to allow for the effects of long term loadings. Proofex Sheetdrain should not be used in soil containing high concentrations of iron oxides or hydroxides or in extremely fine uniformly graded silts or peat. Please contact Fosroc Technical Department for advice when in doubt.

Proofex Sheetdrain is resistant to chemicals found in normal soil conditions, some chemicals in certain concentrations could have an adverse effect on the drainage performance. Please contact Fosroc Technical Department for advice when in doubt.

## Estimating

Product Packaging

Proofex Sheetdrain 80: 2 m x 20 m roll

Proofex Sheetdrain 100 2.44m x 12.5m roll

## Storage

The product is supplied in a roll and must not be exposed directly to UV radiation for over two months.

## Precautions

There are no known health hazards associated with Proofex Sheetdrain in normal use.

## Health and safety

Proofex Sheetdrain 80 weighs approximately 25kg.

Proofex Sheetdrain 100 weighs approximately 24kg.

Each roll should be lifted by a minimum of two site operatives.

## Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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