

ProDrain® Geocomposite Sheet Drain System

The proven choice for:

ADVANCED DRAINAGE CONTROL



ProDrain® Sheet Drains are a range of geocomposite drainage products formulated from selected polymers to form a stable core and void and then encapsulated with a premium nonwoven geotextile, to provide positive filtration and drainage functions. The ProDrain® sheet drain range replaces the need for traditional aggregate drainage layers in many applications of vertical and horizontal drainage. ProDrain® is a cost effective, proven treatment for drainage problems.

- VERTICAL WALL DRAINAGE
- HORIZONTAL ROOF DRAINAGE
- PLANTER BOX DRAINAGE
- MEMBRANE PROTECTION
- LANDFILL CAP DRAINAGE
- LEACHATE COLLECTION SYSTEM
- HORIZONTAL DRAIN SYSTEMS
- and many applications for liquid collection and management of liquid in a wide range of applications

Description

ProDrain® Sheet Drain System

Global Synthetics supply ProDrain® Sheet Drain in two thicknesses, 12mm and 18mm. The product is available in a flat backed configuration that is ideally suited to building and waterproofing applications where point loads are minimised on the waterproofing membrane that may be applied to the wall (see CD12). Conventional 18mm double sided profiles are also available (see CD18) for applications where a higher compressive strength product is required. The ProDrain® Sheet Drain System may be used in vertical drainage applications such as behind walls, the product is ideally suited to horizontal applications such as planter boxes and podium areas.

Two unique products are available within the range to suit the proposed application.

ProDrain® CD12
ProDrain® CD18

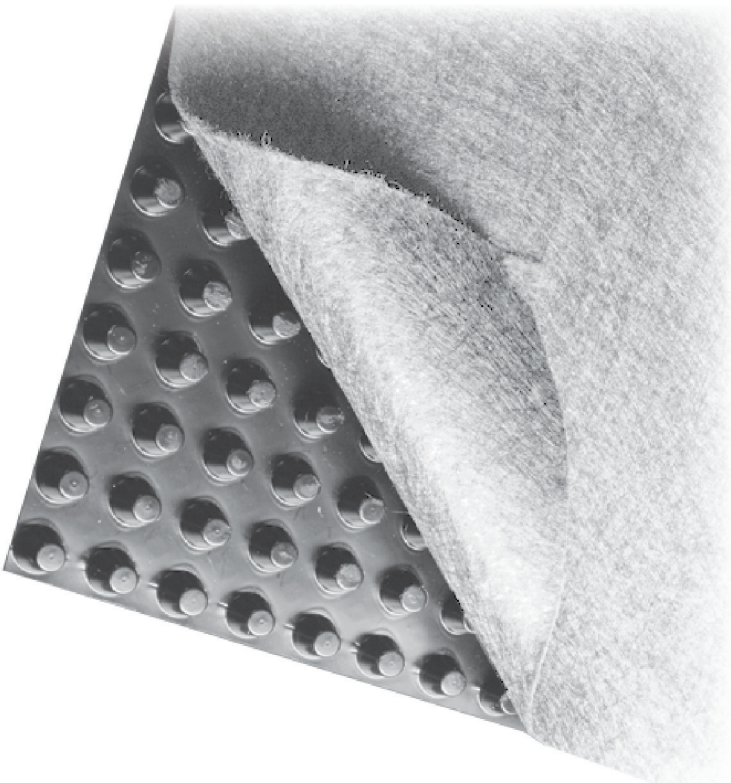
The products have common features of unique polymer void geometry combined with a nonwoven geotextile attached to one side of the product.

The core profile allows for the efficient discharge of water along the core with the geotextile preventing any blockage of the core from fine soil particle movement.

The ProDrain® Sheet Drain System is manufactured in widths of 1m and 1.2m, with a common roll length of 25m for both products.

Cutting of the roll, on site, is easy to carry out, to suit the application specifics (see our installation guide for further details).

The ProDrain® Sheet Drain System is used to replace conventional drainage aggregate systems, saving time and money due to its lightweight structure and quick and easy installation without the need for heavy equipment.



Quick Product Selection Guide

Depth of Wall Structure (m)	PRODUCT ProDrain® Drainage System	
	CD12	CD18
2		
4		
6		
8		
10		

Product Guide is based on stated compressive capacity of each product.
Soil assumed unit mass 20kN/m³. Soil type and saturation degree may influence selection.
No allowance has been made for possible long term creep effects of the core.
Unusual traffic or construction loadings should be carefully assessed. When the product is used in horizontal applications we suggest that the user contact Global Synthetics for additional assistance if required.

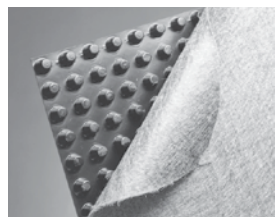
ProDrain® Sheet Drain System Specifications

All ProDrain® products are fitted with a nonwoven geotextile filter wrap. The product may be laid in a number of directions to suit a specific application. In all cases the ProDrain® is positioned such that the side of the product that has the geotextile attached is facing towards the soil. The geotextile can filter a wide range of soil types and can generally be backfilled with on-site materials however the likelihood of geotextile blockage from problematic soils should always be investigated by the client engaged engineer.

			ProDrain® CD12	ProDrain® CD18
PROPERTY	UNIT	TEST METHOD		
PRODRAIN CORE PROPERTIES				
Core Structure		Physical	Single Cuspated Flat Back	Double Cuspated
Core Material	Polymer	Component	HDPE	HDPE
Nominal Core Thickness	mm	ASTM D1777	12	18
Core Open Volume	%	Physical	>90	>90
PRODRAIN GEOTEXTILE PROPERTIES				
Structure	Construction	Component	Nonwoven Geotextile	Nonwoven Geotextile
Material Type	Polymer	Component	PP/PET	PP/PET
Colour	Visual	Visual	Grey	Grey
GEOCOMPOSITE PROPERTIES				
Discharge Capacity @ i = 1	l/min/m	ASTM D4716	>155	>250
Compressive Strength	kPa	ASTM D1621	>200	>250
GEOCOMPOSITE ROLL PHYSICAL PROPERTIES				
Roll Width	m	Physical	1.0	1.0 or 1.2
Roll Length	m	Physical	25	25
Transport Dimensions	m	Physical	0.65 Dia. x 1	0.85 Dia. x 1 or 0.85 Dia. x 1.2

Installation Procedure Overview

ProDrain sheet drainage products are simple to install however some planning in implementation of the task is required. The product may be installed in a number of directions that is convenient to the installer, the application and which minimises product wastage. In all situations it is important that all edges are adequately sealed against the uncontrolled ingress of soils. There may be a requirement for specific collection systems at the base of the ProDrain® sheet drain to efficiently discharge collected water. A conventional “agi pipe” or the ProDrain SD collector pipes are generally suitable for use. It is important that such drains allow for the efficient discharge of water external to the application. Please contact Global Synthetics for additional information relating to installation.



STEP 1.
Peel back the geotextile layer off the last two rows of dimples on both boards to be joined.



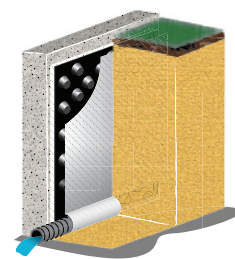
STEP 2.
Apply a spot of neutral cure plastic adhesive to each dimple cavity.



STEP 3.
Overlap the sheets and press together.



STEP 4.
Fold back the geotextile onto the surface and tape the join to hold it together until the backfill soil is placed against.



COMPLETION.
Ensure when necessary, that suitable outlet drainage is installed. Any compaction near the face of the product should be carried out with care.