



# POLYFOND KIT DRAIN

**POLYFOND KIT DRAIN** is a protection and drainage system made from high-density extruded polyethylene (HDPE) laminated with a polypropylene needle-punched nonwoven. It is particularly effective in protecting the waterproofing of below grade structures or earth retaining structures in general and provides excellent drainage.



EN 13252:2014



*Polyglass is a member of the Green Building Council*



1213

*Product meets European standards*



*Adds value!*

## TECHNICAL DESCRIPTION

POLYFOND KIT DRAIN is a protection and drainage system made from high-density extruded polyethylene (HDPE) laminated with a polypropylene needle-punched nonwoven. It is particularly effective in protecting waterproofing of below grade structures or earth retaining structures in general, also providing excellent drainage capacity and is suitable for use in lightweight roof gardens. The structure and geometry of the studs give POLYFOND KIT DRAIN extremely high mechanical performance, ensuring perfect ventilation and excellent water drainage. In addition, POLYFOND KIT DRAIN is designed to provide the waterproofing membrane with suitable protection during foundation backfilling work. The polypropylene nonwoven ensures excellent water filtering and drainage capacity, enabling effective vertical and horizontal drainage.

## WHERE TO APPLY

POLYFOND KIT DRAIN is ideal for application where the waterproofing of retaining walls, below grade structures and foundations requires both protection and drainage, and is also ideal for drainage in lightweight roof gardens.

## APPLICATION PROCEDURES AND TIPS

**Vertical application on below grade structures or earth retaining structures:** POLYFOND KIT DRAIN can be applied on retaining walls by pre-cutting the geocomposite to the desired size, allowing for the fact that it must also cover the drainage pipe previously set in place and covered with medium-grade washed river gravel. Place POLYFOND KIT DRAIN with the nonwoven fabric side facing the backfill and the smooth side facing the waterproofing layer on the wall to be protected. The edges of POLYFOND KIT DRAIN - the mechanical protection and drainage layer - must overlap by approx. 20 cm. On vertical walls, POLYFOND KIT DRAIN must be fixed mechanically to the top of the wall. In addition to fastening POLYFOND KIT DRAIN, the mechanical fixing must also fasten the top of the membrane forming the wall's waterproofing system: this will be done with the aid of a polyethylene or metal profile with fasteners for concrete. Polydetail MS sealant will then be applied between the profile and the concrete wall to seal the fixing.

**Horizontal application on roof gardens with no reservoir:** When creating roof gardens, the drainage layer can be produced by laying POLYFOND KIT DRAIN directly on top of the waterproofing build-up with the filtering nonwoven side facing the growing medium. Drainage must be produced both on the flat part of the garden and along the vertical turn-ups around the outside edges with no break. POLYFOND KIT DRAIN must be overlapped by at least 10 cm on the sides and approx. 15 cm on the ends, exercising great care while backfilling that the growing medium does not lift the overlapping edges, ending up between the two drainage geocomposites. The growing medium must be positioned and laid immediately after POLYFOND KIT DRAIN has been installed.

## SPECIFICATION CLAUSE

POLYFOND KIT DRAIN high-density extruded polyethylene (HDPE) drainage geocomposite with truncated cone studs laminated with filtering nonwoven, mechanically sealed at the sides by overlapping edges. Fixing at the top to the wall using corner profile in high-density extruded polyethylene (HDPE) finish or metal profile with fasteners for concrete. Polydetail MS sealant will then be applied between the profile and the concrete wall to seal the fixing.

## PRODUCT CHARACTERISTICS

GEOCOMPOSITE		NONWOVEN FABRIC	
MASS PER UNIT AREA - EN ISO 9864	600 (±85) g/m <sup>2</sup>	MASS PER UNIT AREA - EN ISO 9864	100 (±10) g/m <sup>2</sup>
THICKNESS - EN ISO 9863-1	7,5 (±2) mm	AVERAGE TENSILE STRENGTH MD/CMD EN ISO 10319	6/6 (-1) kN/m
TENSILE STRENGTH MD/CMD EN ISO 10319	10/10 (-2) kN/m	ELONGATION AT BREAK MD/CMD EN ISO 10319	55/60 (±30) %
ELONGATION AT BREAK MD/CMD EN ISO 10319	50/60 (±10) %	STATIC PUNCTURE RESISTANCE CBR EN ISO 12236	1000 (-100) N
HYDRAULIC PROPERTIES OF THE GEOCOMPOSITE		DYNAMIC PERFORATION RESISTANCE EN ISO 13433	34 (+9) mm
IN-PLANE WATER FLOW CAPACITY, MD (20KPA, S/S, I=1) - EN ISO 12958	1,9 (-0,2) l/(m·s)	FLOW NORMAL TO THE PLANE EN ISO 11058	90 (-40) mm/s
IN-PLANE WATER FLOW CAPACITY, MD EN ISO 12958	-20% l/(m·s)	CHARACTERISTIC OPENING (PORE) SIZE EN ISO 12956	95 (±30) microns
Hydraulic gradient			
	Load	Load	Load
	20 kPa	50 kPa	100 kPa
Contact	M/R	M/R	M/R
i=0,04	0,30	0,17	0,07
i=0,10	0,50	0,30	0,10
i=1	1,90	1,15	0,50

S/S: Soft/Soft contact - S/H: Soft/Hard contact

MD: Machine direction  
CMD: Cross-machine direction

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## PACKAGING DIMENSIONS AND NOTES FOR STORAGE

LENGTH	20 (±2%) m
HEIGHT	2-2,4 (±3%) m
M <sup>2</sup> PER PALLET	240/288
ROLLS PER PALLET	6

## SAFETY REGULATIONS

Polyfond Kit Drain is an item that does not require a safety data sheet to be compiled according to current European regulations (Reg. 1906/2007/EC - REACH).

PRODUCT FOR PROFESSIONAL USE

Instructions and technical details given herein are correct to the best of our knowledge and experience. Anyone planning to use Polyfond Kit Drain must ensure that it is suitable for the intended purpose. In all cases, the installer is solely responsible for the product's installation and for all consequences arising therefrom. Always refer to the latest up-to-date version of the technical data sheet, which you can find on our site: [www.polyglass.com](http://www.polyglass.com). If you have any queries, please contact our Technical Department.

In line with our policy of continuous product development, we reserve the right to make any required changes without prior notice.



*Adds value!*

POLYGLASS SPA

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