

## GEOFLOW 44 – Drainage geocomposites

### PRODUCT DESCRIPTION AND USES

Geoflow is a drainage geocomposite range which consists in the combination of a geogrid and non-woven geotextiles:

- Geoflow 44: HDPE geogrid presenting a high flow rate capacity,
- Geoflow 44 1F: HDPE geogrid with a polypropylene geotextile bonded on one side,
- Geoflow 44 2F: HDPE geogrid with a polypropylene geotextile on both sides.

GEOFLOW has a large range of applications, such as in:

- Landfills: drainage of biogases and leachates,
- Basins: drainage of underground waters to eliminate hydrostatic pressure,
- Civil works: drainage of underground waters and rainwater when laid vertically on walls and other buried structures,
- Etc.

The Geoflow range is commercialised in 2 and 4 meter wide and 50 m long. Geoflow 44 1F and Geoflow 44 2F present a 10 cm geotextile strip on both sides to allow overlapping.

### COMPOSITION

Geogrid	HDPE
Geotextile	Nonwoven polypropylene

### DIMENSIONAL CHARACTERISTICS

#### ➤ Geogrid

Carbon black (%)	1.2 – 2.5
Density (g/cm <sup>3</sup> )	> 0.94
Area density (g/m <sup>2</sup> )	500

#### ➤ Geotextile

Area density (g/m <sup>2</sup> )	120
----------------------------------	-----

#### ➤ Geoflow

	Geoflow 44	Geoflow 44 1F 1x30 m	Geoflow 44 1F 2x50 m	Geoflow 44 1F 4x85 m	Geoflow 44 2F 4.1x70m	Geoflow 44 2F 4x 85 m
Roll size (m)	4.2 x 90	1 x 30	2 x 50	4 x 85	4.1 x 70	4 x 85
Area density (g/m <sup>2</sup> )	500	620	620	620	740	740
Mass per roll (kg)	189	18.6	62	210.8	212.4	251.6

## PERFORMANCES

### ➤ Geogrid

Test	Standard	Unit	Average value
Thickness under 2 kPa / 200 kPa (mm)	ISO 9863-1	mm	4.2 x 3.8

### ➤ Geotextile

Test	Standard	Unit	Average value
Cone drop test	ISO 13433	mm	30
CBR puncture test	ISO 12236	kN	1.4
Opening size	ISO 12956	µm	< 170
Water flow rate, normal to the plane	ISO 11058	L/m <sup>2</sup> .s	90


### ➤ Geocomposite

Test	Standard	Unit	Average value		
			Geoflow 44	Geoflow 44 1F	Geoflow 44 2F
Thickness under 2 kPa / 200 kPa (mm)	ISO 9863-1	mm	4.2 x 3.8	4.5 x 4.0	4.8 x 4.2
Tensile strength	ISO 10319-97	kN/m	6.0 x 2.0	12 x 9	19 x 17
Elongation	ISO 10319-98	%	20 x 90	40 x 50	40 x 50
CBR puncture test	ISO 12236	kN	0.5	1.6	2.9

### ➤ Flow rate capacity in their plane – ISO 12958

Hydraulic gradient	Normal pressure	Unit	Geoflow 44	Geoflow 44 1F	Geoflow 44 2F
i = 1	σ = 20 kPa	L/(m.s)	1.62	1.26	0.62
	σ = 50 kPa	L/(m.s)	1.50	1.11	0.51
	σ = 200 kPa	L/(m.s)	1.17	0.76	0.35
	σ = 500 kPa	L/(m.s)	0.80	0.43	0.24

## ISO 9001 REFERENCE DOCUMENT

<p>Our products are manufactured by certified ISO 9001 plants</p>	
---	---

## PACKAGING

	Geoflow 44	Geoflow 44 1F 1x30 m	Geoflow 44 1F 2x50 m	Geoflow 44 1F 4x85 m	Geoflow 44 2F 4.1x70m	Geoflow 44 2F 4x 85 m
Rolls quantity per truck pallet		3	4			
Container 40'		186	44	18		18
Container 20'		90	20	9		9

GEOFLOW 44 1F and GEOFLOW 44 2F rolls are protected by a black plastic film.  
 GEOFLOW 44 1F is available in strips of 0.5 m wide and 50 m long.

## GENERALITIES ABOUT APPLICATION

The products from Geoflow range need to be cover under 14 days after the application.

## COMPLEMENTARY INFORMATIONS

Values	Where 2 values for given characteristics are shown, the first is for longitudinal direction and the second is for the cross direction.
Tolerances	The average values derived from standard tests and are subject to the usual production variations. Some slight variations can be noticed as the values are based on the average values obtained from several plants.
Modification(s)	Our company reserves the right to modify its composition as a result of technologic and experiments improvements. This product data sheet supersedes the previous edition, to obtain the up-date technical data sheet, please contact our technical department
Hazardous classification	It is not classified as dangerous according to the international regulation (ADR, RID, IATA, and RTMDR)
Complementary information	This document is only a product technical data sheet, regarding each waterproofing design, please, consult the concerned technical agreement and in case of doubt contact our technical department.