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European Technical Assessment

ETA 15/0201
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General part

Trade name of the construction product	Drenotube®
Product family to which the construction product belongs	Preassembled line unit for drainage or infiltration
Manufacturer	FUMOSO INDUSTRIAL SA Llevant, 9. Polígon Industrial de Llevant ES08150 Parets del Vallès (Barcelona) Spain
Manufacturing plant(s)	Llevant, 9. Polígon Industrial de Llevant ES08150 Parets del Vallès (Barcelona) Spain
This European Technical Assessment contains	10 pages including 2 Annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) 305/2011, on the basis of	European Assessment Document (EAD) 280001-00-0704. <i>Preassembled line unit for drainage or infiltration</i> . Edition May 2014

General comments

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document.

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Specific parts of the European Technical Assessment

1 Technical description of the product

Drenotube[®] is a preassembled line unit used for drainage or infiltration. Two types of preassembled line units are possible as a result of including or not including a polyethylene pipe enclosed in the unit:

- Preassembled line units comprising a horizontal corrugated slotted or perforated pipe of polyethylene in the inside, EPS aggregates that are held surrounding the pipe by means of a netting and a geotextile which covers at least the upper two thirds of the outer surface. The units are set end to end by plastic couplers.
- Preassembled line units comprising EPS aggregates that are held by means of a netting and a geotextile which covers at least the upper two thirds of the outer surface. The units are not set end to end.

Figures of the preassembled line unit are shown in annex 2.

Two types of EPS aggregate are possible for each type of preassembled line unit. EPS aggregates differ in their bulk density (EPS 14: 7 kg/m³ and EPS 20: 10 kg/m³) and in their dimensions (see annex 1). Moreover, two diameters of the unit are also possible, resulting in the configurations shown in the following table.

Configuration	Product parameters			Intended use
	Outer diameter of the unit (mm)	Unit with pipe	Unit without pipe	
Drenotube [®] Ø300 with pipe EPS 20	300	X	---	Drainage
Drenotube [®] Ø300 without pipe EPS 20		---	X	
Drenotube [®] Ø370 with pipe EPS 20	370	X	---	
Drenotube [®] Ø370 without pipe EPS 20		---	X	
Drenotube [®] Ø300 with pipe EPS 14	300	X	---	Infiltration
Drenotube [®] Ø300 without pipe EPS 14		---	X	
Drenotube [®] Ø370 with pipe EPS 14	370	X	---	
Drenotube [®] Ø370 without pipe EPS 14		---	X	

Table 1. Product configurations in accordance with the product parameters and the intended use.

The nominal dimensions and tolerances of the configurations of the Drenotube[®] are shown in the following table:

Configuration	Diameter (mm)	Length (mm)(1)	Weight (g/m)
Drenotube [®] Ø300 with pipe EPS 20	300 ± 20	3.000 ± 1 %	1.130
		6.000 ± 1 %	(-40; +200)
Drenotube [®] Ø300 without pipe EPS 20	300 ± 20	3.000 ± 1 %	850
		6.000 ± 1 %	(-40; +200)
Drenotube [®] Ø370 with pipe EPS 20	370 ± 20	3.000 ± 1 %	1.785
		6.000 ± 1 %	(-100; +200)
Drenotube [®] Ø370 without pipe EPS 20	370 ± 20	3.000 ± 1 %	1.240
		6.000 ± 1 %	(-100; +200)
Drenotube [®] Ø300 with pipe EPS 14	300 ± 20	3.000 ± 1 %	930
		6.000 ± 1 %	(-40; +200)

Configuration	Diameter (mm)	Length (mm)(1)	Weight (g/m)
Drenotube® Ø300 without pipe EPS 14	300 ± 20	3.000 ± 1 %	640
		6.000 ± 1 %	(-40; +200)
Drenotube® Ø370 with pipe EPS 14	370 ± 20	3.000 ± 1 %	1.390
		6.000 ± 1 %	(-100; +200)
Drenotube® Ø370 without pipe EPS 14	370 ± 20	3.000 ± 1 %	1.000
		6.000 ± 1 %	(-100; +200)

(1) The nominal unit length varies between 3 and 6 m. Values from 2 m to 12 m are possible.

Table 2. Nominal dimensions, weight and tolerances for the Drenotube® preassembled line units.

The ETA is issued for the preassembled line unit on the basis of agreed data/information, deposited with the ITeC, which confirm that the product under assessment conforms to its declared characteristics.

2 Specification of the intended use(s) in accordance with the applicable EAD

Drenotube® is used as underground drainage or infiltration without pressure for water not intended for human consumption:

- Drainage: agriculture and gardening, civil works, buildings, bridges, retaining walls, foundation drains, pathways, French drains, sport fields, golf courses, etc.
- Infiltration: discharge points of septic tanks, creating nitrification fields, etc.

Preassembled line units with EPS 14 aggregate are used for infiltration and preassembled line units with EPS 20 aggregate are used for drainage.

The provisions made in this ETA are based on a working life of the preassembled line unit for the intended use of 25 years when installed in the works. These provisions are based upon the current state of the art and the available knowledge and experience.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee, but are regarded only as a means for choosing the appropriate products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and reference to the methods used for its assessment

3.1 Essential characteristics of the product

The assessment of Drenotube® and its components for the intended use considering the basic requirements for construction works 2, 3 and 4 was performed following the EAD 280001-00-0704. Essential characteristics for the Drenotube® are indicated in table 3.

Basic work requirement	Essential characteristic	Performance
BWR 2	Reaction to fire	F
BWR 3 + BWR 4	Content and/or release of dangerous substances	No dangerous substances contained (see clause 3.2.1)
	Deformation	Configuration of Drenotube® Mean value of deformation (mm) at specified load steps