

## DANODREN H25 PLUS

Danodren H25 Plus is a nodular sheet composed of high density polyethylene (HDPE) and joined to a non-woven geotextile of calendered polypropylene of 120 g/m<sup>2</sup>. Nodule height is 7,3 ± 0,2 mm. It is specially designed as drainage layer and for protection of underground walls and slabs in contact with the ground.



### CE MARKING

Identification number of the Certification Body: 0099

DERIVADOS ASFALTICOS NORMALIZADOS S.A.  
Calle La Granja 3 (28108 - Alcobendas, MADRID)

Year in which the CE marking was affixed: 2008  
Certificate number CPF: 0099 / CPD / A42 / 0053  
European standard EN 13252

Produced at: Polígono Industrial Sector 9 (19290 - FONTANAR, Guadalajara)

The product fulfils the requirements established on the above mentioned norms, for the following applications: "F+S+R+D"  
F= Filtration S=Separation R=Resistance D=Drainage

### TECHNICAL DATA

TECHNICAL DATA	VALUE	UNIT	STANDARD
Capacity of water flow in the plane	0.00203	m <sup>2</sup> /s	UNE EN ISO 12958
N° Nodule/m <sup>2</sup>	1907	-	-
Compressive strength	300 ± 20%	KN/m <sup>2</sup>	UNE EN ISO 12311-1
Tensile strength	> 700	N/60 mm	UNE EN ISO 12311-1
Elongation at break	> 22	%	UNE EN ISO 12311-1
Module of elasticity	1500	N/mm <sup>2</sup>	ISO 178
Water Absorption	1	mg/4d	DIN 53495
Drainage capacity, approx.	4.8	l/s.m	-
Temperature Resistance	-30 a 80	°C	-
Air volume between nodes, approx.	5.9	l/m <sup>2</sup>	-

### ADDITIONAL TECHNICAL DATA

ADDITIONAL DATA	VALUE	UNIT	STANDARD
Puncture resistance (CBR)	1.36, -0.08	KN	UNE EN ISO 12236
Longitudinal tensile strength	7.63, -0.32	KN/m	UNE EN ISO 10319
Longitudinal elongation at break	44.78 ± 2.16	%	UNE EN ISO 10319
Opening Measurement	160 ± 24	µm	UNE EN ISO 12956
Water permeability	61.40 Exp-3, -9.21 Exp-3	m/s	UNE EN ISO 11058

### DRAINAGE CAPACITY IN THE PLANE OF THE GEOCOMPOSITE (UNE EN ISO 12958)

Drainage capacity (i=0,1)	l/m.s	m <sup>2</sup> /s
Compresión a 20 Kpa	0.58552	0.00059
Compresión a 100 Kpa	0.55159	0.00055
Compresión a 200 Kpa	0.50627	0.00051
Drainage capacity (i= 1)	l/m.s	m <sup>2</sup> /s
Compresión a 20 Kpa	2.13417	0.00213
Compresión a 100 Kpa	1.97812	0.00198
Compresión a 200 Kpa	1.82191	0.00182

**DECLARATION OF CONFORMITY**

DERIVADOS ASFÁLTICOS NORMALIZADOS S.A.  
Calle La Granja 3 (28108 - Alcobendas, MADRID)

The product fulfils the requirements established on the above mentioned norms, for the following applications: "F+S+R+D"  
F=Filtration S=Separation R=Resistance D=Drainage

This product is according to the Z.A. Annex of the UNE-EN 13252

Certificate number CPF: 0099 / CPD / A42 / 0053

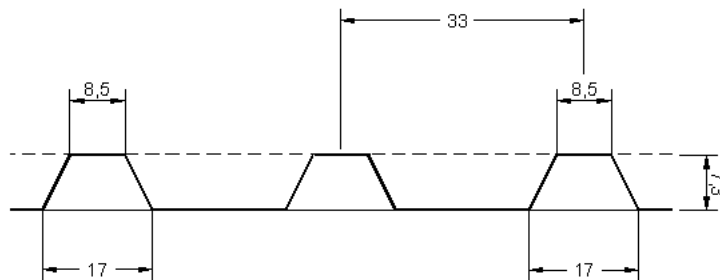
José Antonio Manzarbeitia Valle  
Manager Quality and R&D Manager.  
Fontanar, March 01<sup>st</sup> 2009

**STANDARDS AND CERTIFICATION**

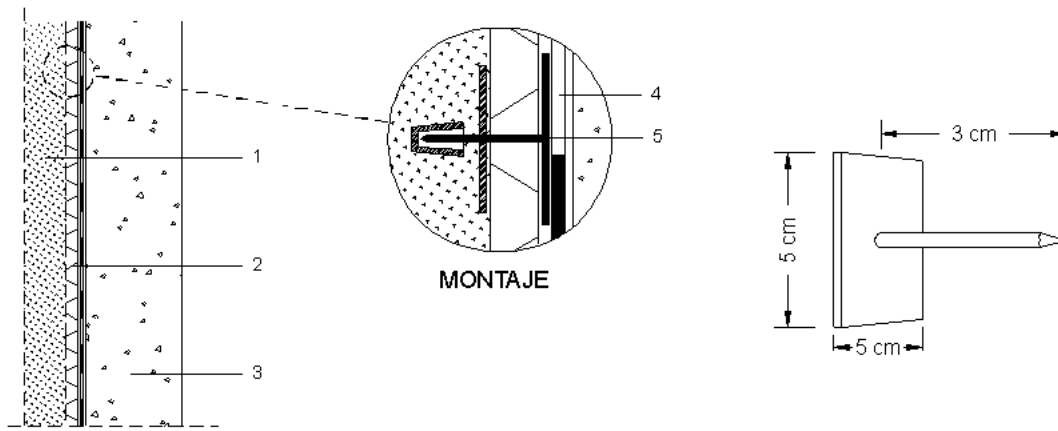
Certificado de conformidad CE de geotextiles y productos relacionados. Cumple con los requisitos del Código Técnico de la Edificación (C.T.E.).

**PRESENTATION**

PRESENTATION	VALUE	UNIT
Length	20	m
Width	2.10	m
Nodule height	7,3 ± 0,2	mm
Roll surface	42	m <sup>2</sup>
Rolls per pallet	6	rolls
Product Code	314065	-

**ADVANTAGES AND BENEFITS**


INSTRUCTION FOR USE



WARNING

The information that appears in the following document makes reference to the uses and utilities of danosa's products and systems, and it is based on the knowledge that have been learnt until present, by Danosa. This is only possible if products have been stored and used in an appropriate way.

Nevertheless, Danosa is not responsible for unsuitable uses of the products neither any other facts, such as meteorological facts. So Danosa is just responsible for the quality related to the provided products.

Danosa reserves the right to carry out modifications without previous notice.

The values that appear in the technical sheet are the results of the tests that have been performed in our laboratory. September 2006.

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