



BYWAY
GREEN
ROOF

ENVIRET SH

Growing and hydroaccumulation board



Characteristics: Nonwoven fabric made by Airlay technology from recycled synthetic fibers, mainly polyester, bonded with bicomponent polyester fibers.

Material content: Sorted recycled technical and second-hand textile, PET BICO fibers.

Registration: Growing aid according to the Act of the Czech Republic No. 156/1998 Coll.

Properties:



Regular use: The growing and hydroaccumulation board is intended for the foundation of layers of green roofs, mostly extensive light roofs with drought-tolerant plants, such as Sedum and Sempervivum stonecrops, and also possibly for intensive roofs. In the structure of the green roof, the board fulfills the function of hydroaccumulation, for retaining water in the structure, and growing.



Material specification

Date of Issue: 15. 5.2023

Quality Management System ISO 9001, ISO 14001, ISO 45001 and ISO 50001



EASY WAY TO GREEN ROOF

ENVIRET SH

Growing and hydroaccumulation board

Technical parameters

	ENVIRET SH	10	20	30	40	tolerance
PHYSICAL PROPERTIES						
Mass per unit area / EN ISO 9864	g/m ²	1000	2000	3000	4000	± 15 %
Density	kg/m ³	100	100	100	100	
Mass of fully saturated board	kg/m ²	9	19	29	39	± 15 %
Thickness 0,5 kPa / EN ISO 9073-2	mm	10	20	30	40	± 15 %
MECHANICAL PROPERTIES						
Tensile strenght / EN ISO 10319	↑ → kN/m	55 20	115 40	135 45		
Dynamic perforation resistance / EN ISO 13433	mm	45	20	5		
CHEMICAL PROPERTIES						
pH* / ČSN EN 13037		6,8 - 8,4				
Electric conductivity EC* (max) / ČSN EN 13038	mS / cm	0,1				
Content of risk elements (max) / Act of the Czech Republic No. 156/1998 Coll.	g / kg of dry matter	cadmium 2, lead 100, mercury 1.0, arsenic 20, chrome 100, copper 100, nickel 50, zinc 300				
Registration No. / Act of the Czech Republic No. 156/1998 Coll.		5152	5151	5139		
FIRE CLASSIFICATION						
Composition of an extensive green roof ČSN P CEN/TS 1187		Broof T3				
HYDRAULIC PROPERTIES						
Hydroaccumulation capacity	l/m ²	8	17	26		
Maximum water capacity *	%	78 – 83	80 – 85	83 – 88		
Porosity *	%	90 - 95	90 - 95	90 - 95		
DIMENSIONS**						
Delivered format		board				
Width	cm	60	60	60		± 2 cm
Lenght	cm	120	120	120		± 2 cm
PACKAGING AND STORAGE						
Pallet dimension	cm	120x120	120x120	120x120		
Number of boards per pallet	ks	200	134	100		
	m ²	144	97	72		
Appr. weight of pallet	kg	300	300	300		
Storage		Under roof, in dry places				

The data are informative purpose only.

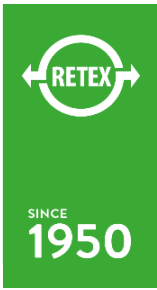
The data was measured at the laboratories of RETEX a.s., Brno University of Technology and the Textile Institute Brno.

* Data measured in the laboratories of The Silva Tarouca Research Institute for Landscape and Ornamental Gardening .

** Possibility of deliveries in rolls. The width and length of the boards can be changed by agreement.

IMPORTANT

- The product is intended for growing ornamental plants.
- The product is not intended for growing food, fruit and vegetables.
- The product can only be used on roofs, not in the ground.
- The product must not be used for mixing with or applied to topsoil.
- The product must be disposed of as waste.

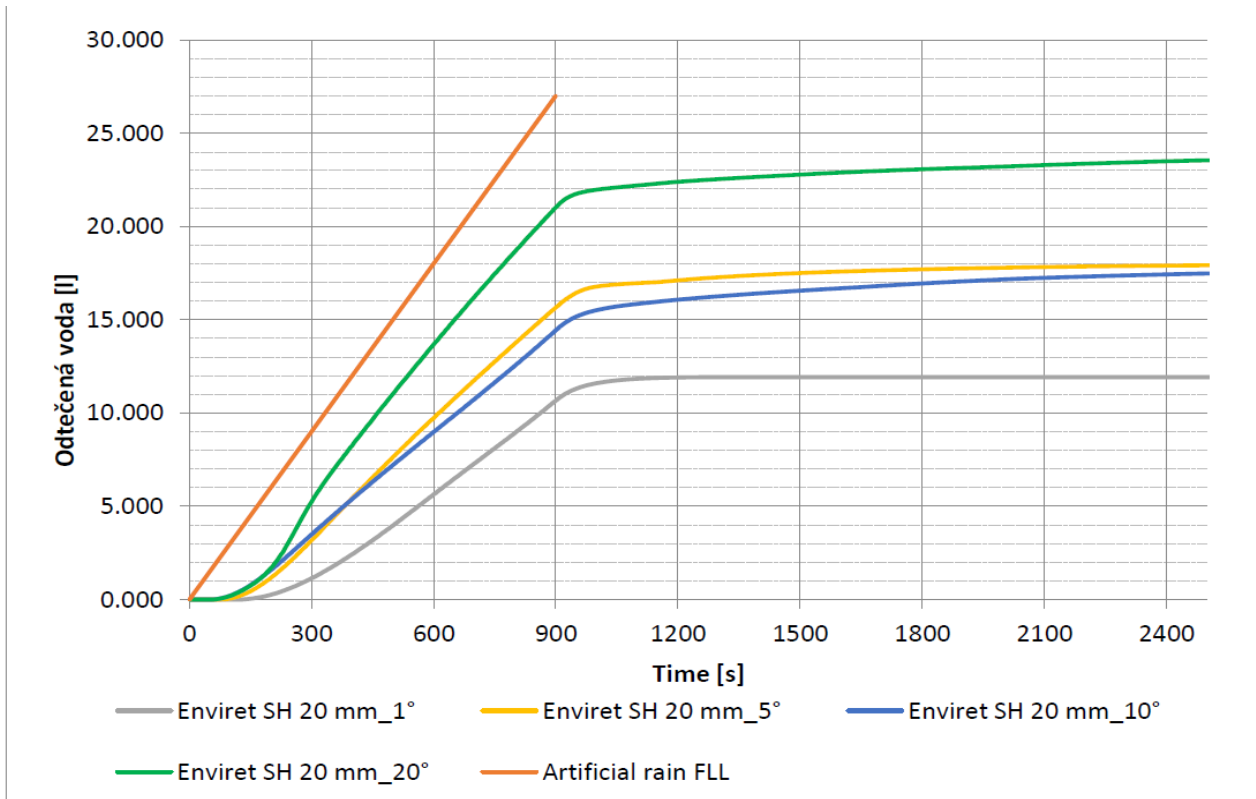


EASY WAY TO GREEN ROOF

ENVIRET SH

Growing and hydroaccumulation board

Off-flow characteristic for different roof slopes - ENVIRET SH 2000 TL20



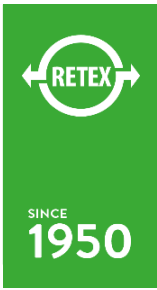
Notes:

Off-flow characteristic of board- tested on area of 1,35 m²
Measured without geotextile, loaded with 100 mm sharp gravel.
Rain simulated in accordance with FLL norm 27mm water column- 15min.

BOARD RETENTION - the difference between FLL rain precipitation and off-flow at a given time.

Data measured at VUT Brno, Ing. Petr Selnik, 2017/2018.

Tested under laboratory condition

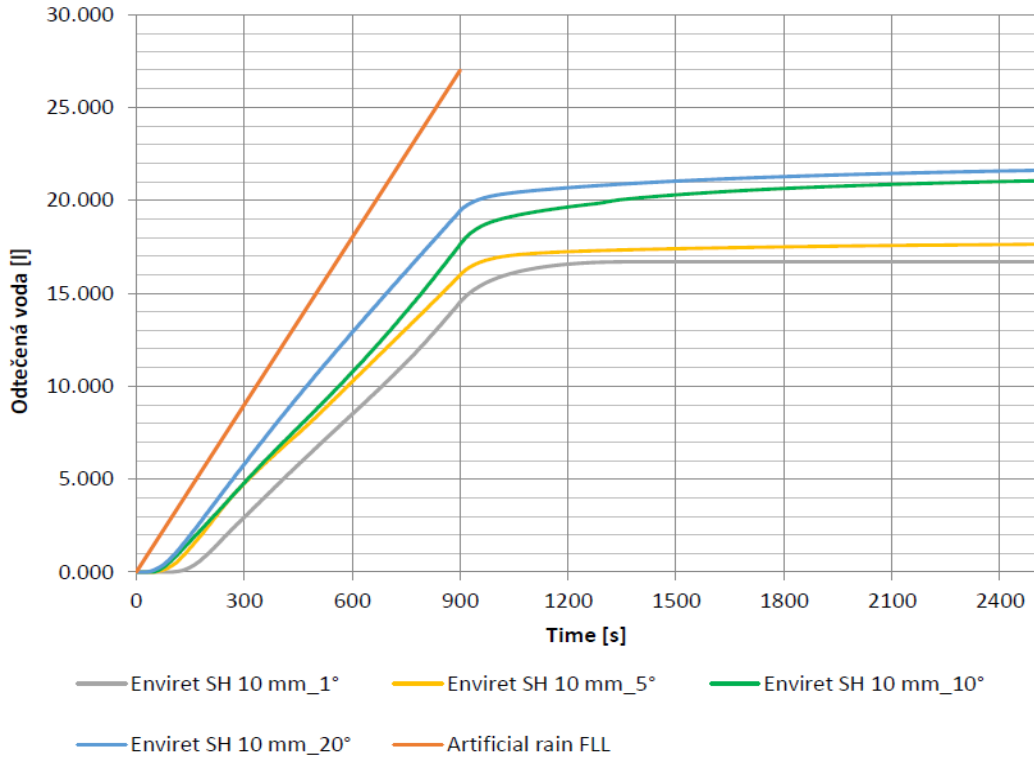


EASY WAY TO GREEN ROOF

ENVIRET SH

Growing and hydroaccumulation board

Off-flow characteristic for different roof slopes - ENVIRET SH 1000 TL10



Notes:

Off-flow characteristic of board- tested on area of 1,35 m²
Measured without geotextile, loaded with 100 mm sharp gravel.
Rain simulated in accordance with FLL norm 27mm water column- 15min.

BOARD RETENTION - the difference between FLL rain precipitation and off-flow at a given time.

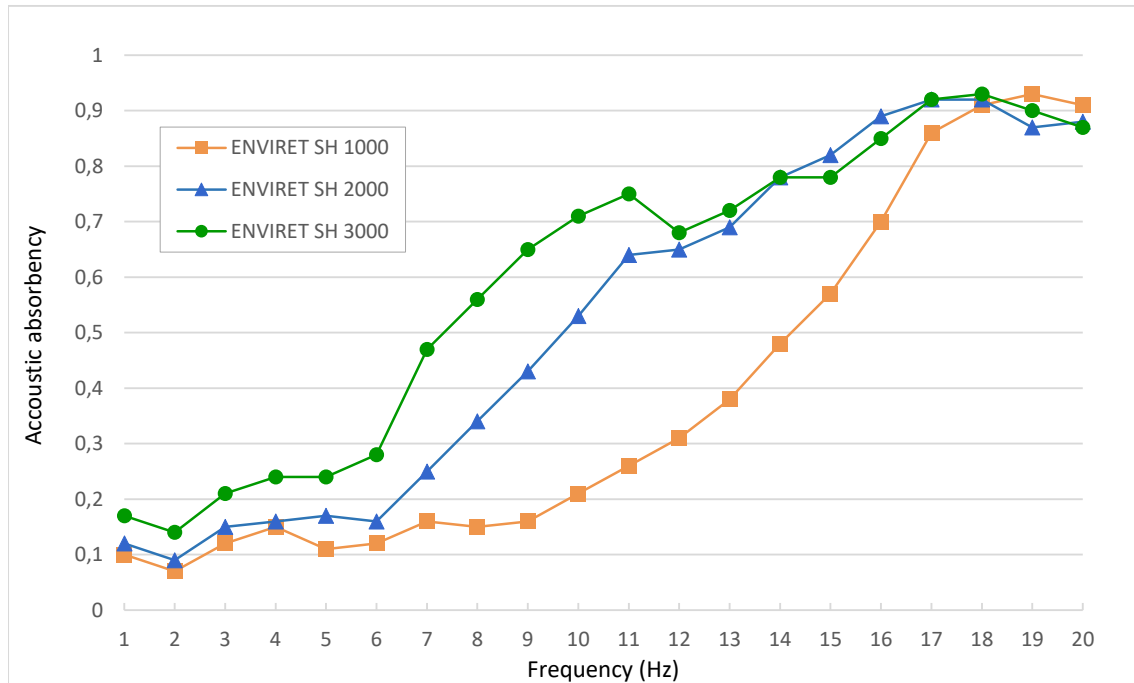
Data measured at VUT Brno, Ing. Petr Selnik, 2017/2018.

Tested under laboratory condition

ENVIRET SH

Growing and hydroaccumulation board

ACOUSTIC ABSORBENCY



	ENVIRET SH 1000	ENVIRET SH 2000	ENVIRET SH 3000
100	0,100	0,120	0,170
125	0,070	0,090	0,140
160	0,120	0,150	0,210
200	0,150	0,160	0,240
250	0,110	0,170	0,240
315	0,120	0,160	0,280
400	0,160	0,250	0,470
500	0,150	0,340	0,560
630	0,160	0,430	0,650
800	0,210	0,530	0,710
1000	0,260	0,640	0,750
1250	0,310	0,650	0,680
1600	0,380	0,690	0,720
2000	0,480	0,780	0,780
2500	0,570	0,820	0,780
3150	0,700	0,890	0,850
4000	0,860	0,920	0,920
5000	0,910	0,920	0,930
6000	0,930	0,870	0,900
6300	0,910	0,880	0,870

Data measured at VUT Brno, doc.Ing. Jiří Zach, Ph.D, 2018

Tested under laboratory condition