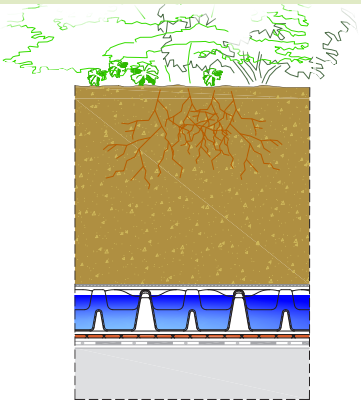
DiaDrain-60H

Water-retention and drainage board

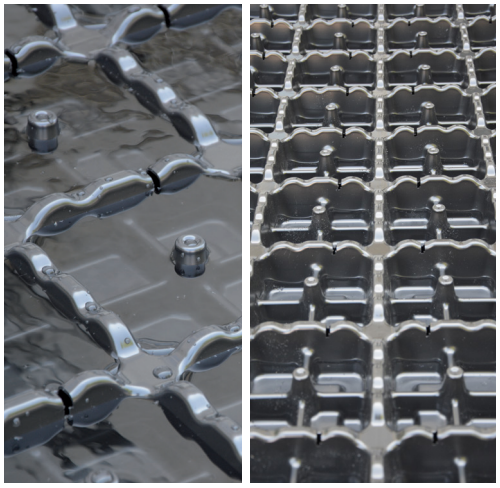
310233

KEY FEATURES

- High rain- and irrigation-water retention ⇨ approx. 30,5 l/m² water storage capacity
- Protecting the waterproofing against the scattering of the filling material ⇨ protective overlapping edge around the board
- Increased contact surface ⇨ heightened protection of the waterproofing through the favorable weight distribution
- Long-term ventillation of the root area ⇨ increased diffusion openings
- Durable and high compressive strength material (HIPS) ⇨ no water cooling needed during summer installations
- Preventing the sinking of the filter layer ⇨ dedicated support cones
- Suitable for flooded blue roof ⇨ Flooding height with approx 50 mm; with the combination of DiaDrain-60H-UP as a DiaDrain-120-WM wassermanagement system up to 100 mm water level
- Fire classification regarding EN 13501-1 ⇨ classified as class „E“ construction product, therefore without limitation applicable



DIADEM® BUILD-UP
Vegetation
Growing media
VLF-200 filter layer
DiaDrain-60H drainage board (filled)
VLS-500 water retention
and mechanical protection layer
Root resistant waterproofing membraine
Roof construction



APPLICATION

Rainwater-retention and flow-delay drainage board for semi-intensive or intesive roof gardens, for green roofs with flooded irrigation system and for paved roofs with sporadical traffic, eg. car parks, fire department access roads.

SPECIFICATION

Rainwater-retention and flow-delay drainage board with CE marking, made of recycled high-impact polystyrene (HIPS), 60 mm high, for semi-intensive or intesive roof gardens, and for green roofs with flooded irrigation system up to a water level of approx. 50 mm (even up to approx. 100 mm when used in the DiaDrain-120-WM System), and for paved roofs with sporadical traffic, eg. car parks, fire department access roads, when filled and laid with bedding layer above the filter fleece. With overlapping strip around the board, dam grid structure and large water storage cells for an outstanding water retention of 30.45 l/m², with perforations on the upside, and water channel system on the underside for water drainage and vapour diffusion, especially for inverted roofs. Can be used for diffusion- and capillary irrigation. Compressive strength: 122 kN/m² (average); Water flow capacity on 2% roof slope 2.06 l/(m×s) certified according to EN ISO 12958, fire classification as class „E“ construction product regarding EN 13501-1.
Product: DIADEM® DiaDrain-60H
Manufacturer's Certificate of Origin (MCO): APP Kft.
Website: www.diadem.com

CE
EN13252

100% recyclable

Microbiological resistance
EN12225
25-year stability guaranteed!

nqa. ISO 9001 Registered UKAS 015

nqa. ISO 14001 Registered UKAS 015

TECHNICAL DATA

Dimensions (mm)	1940x940x60 (nominal); 1980x940x60 (gross)
Surface (m²)	1,82
Water storage capacity (l/m²)	30,45
Fill-up volume (l/m²)	approx. 40
Weight (+/-5%, kg/m²)	2,2
Compressive strength (unfilled, average, kN/m²)	122
Compressive strength (filled, 21,55% compressive strain, kN/m²)	1320
Material	high impact polystyrene (HIPS)
Water flow capacity DIN EN ISO 12958 (l/(mxs))	at 2%: 2,06 • at 5%: 3,34 • at 10%: 4,81
Fire classification	Class E regarding DIN EN 13501-1
Storage	horizontally, protect from UV radiation
Installation	adjacent to each other or overlapped, cover immediately after laying
Overlapping loss (%)	1,5

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Green Up the Roof!

PRODUCT INFORMATION SHEET

DiaDrain-60H

Water-retention and drainage board

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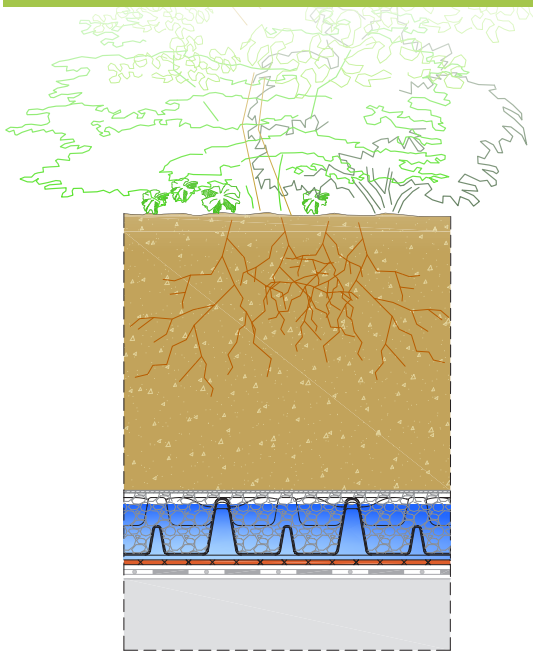
DIADEM® APPLICATION EXAMPLE - FLOODED ROOF



Vegetation

Growing media

VLF-200 filter layer

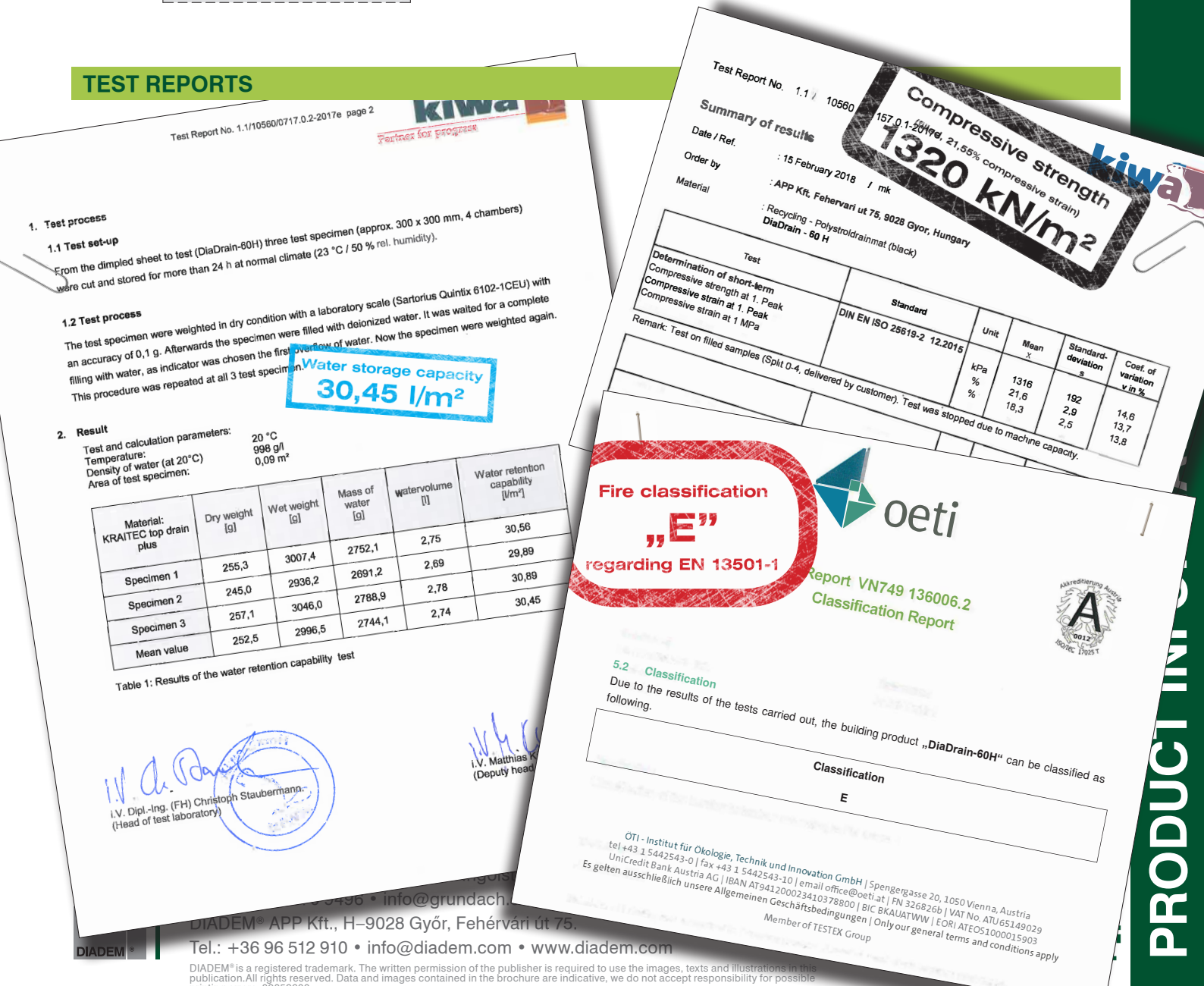
DiaDrain-60H drainage board (filled)

VLS-500 water retention and mechanical protection layer

Root resistant waterproofing membraine

Roof construction

TEST REPORTS



Test Report No. 1.1/10560/0717.0.2-2017e page 2

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1. Test process

1.1 Test set-up

From the dimpled sheet to test (DiaDrain-60H) three test specimen (approx. 300 x 300 mm, 4 chambers) were cut and stored for more than 24 h at normal climate (23 °C / 50 % rel. humidity).

1.2 Test process

The test specimen were weighted in dry condition with a laboratory scale (Sartorius Quintix 6102-1CEU) with an accuracy of 0,1 g. Afterwards the specimen were filled with deionized water. It was waited for a complete filling with water, as indicator was chosen the first overflow of water. Now the specimen were weighted again. This procedure was repeated at all 3 test specimen.

Water storage capacity 30,45 l/m²

2. Result

Test and calculation parameters:
Temperature: 20 °C
Density of water (at 20°C) 998 g/l
Area of test specimen: 0,09 m²

Material: KRAITEC top drain plus	Dry weight [g]	Wet weight [g]	Mass of water [g]	watervolume [l]	Water retention capability [l/m²]
Specimen 1	255,3	3007,4	2752,1	2,75	30,56
Specimen 2	245,0	2936,2	2691,2	2,69	29,89
Specimen 3	257,1	3046,0	2788,9	2,78	30,89
Mean value	252,5	2996,5	2744,1	2,74	30,45

Table 1: Results of the water retention capability test

i.V. Dipl.-Ing. (FH) Christoph Staubermann
(Head of test laboratory)

i.V. Matthias K
(Deputy head

Test Report No. 1.1 / 10560

Summary of results

Date / Ref. : 15 February 2018 / mk

Order by : APP Kft. Fehervari ut 75, 9028 Gyor, Hungary

Material : Recycling - Polystroldrainmat (black) DiaDrain - 60 H

Compressive strength (157.0 1-2014, 21,55% compressive strain) 1320 kN/m²

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Test	Standard	Unit	Mean x	Standard deviation s	Coef. of variation v in %
Determination of short-term Compressive strength at 1. Peak	DIN EN ISO 25619-2 12.2015	kPa	1316	192	14,6
Compressive strain at 1. Peak		%	21,6	2,9	13,7
Compressive strain at 1 MPa		%	18,3	2,5	13,8

Remark: Test on filled samples (Split 0-4, delivered by customer). Test was stopped due to machine capacity.

Fire classification „E" regarding EN 13501-1

oeti

Report VN749 136006.2
Classification Report

Akkreditierung Austria A 0012 ISO/IEC 17025

5.2 Classification

Due to the results of the tests carried out, the building product „DiaDrain-60H" can be classified as following.

Classification
E

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UniCredit Bank Austria AG | IBAN AT941200023410378800 | BIC BKAUATWW | EORI ATEOS1000015903
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Member of TESTEX Group

PRODUCT INFO

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