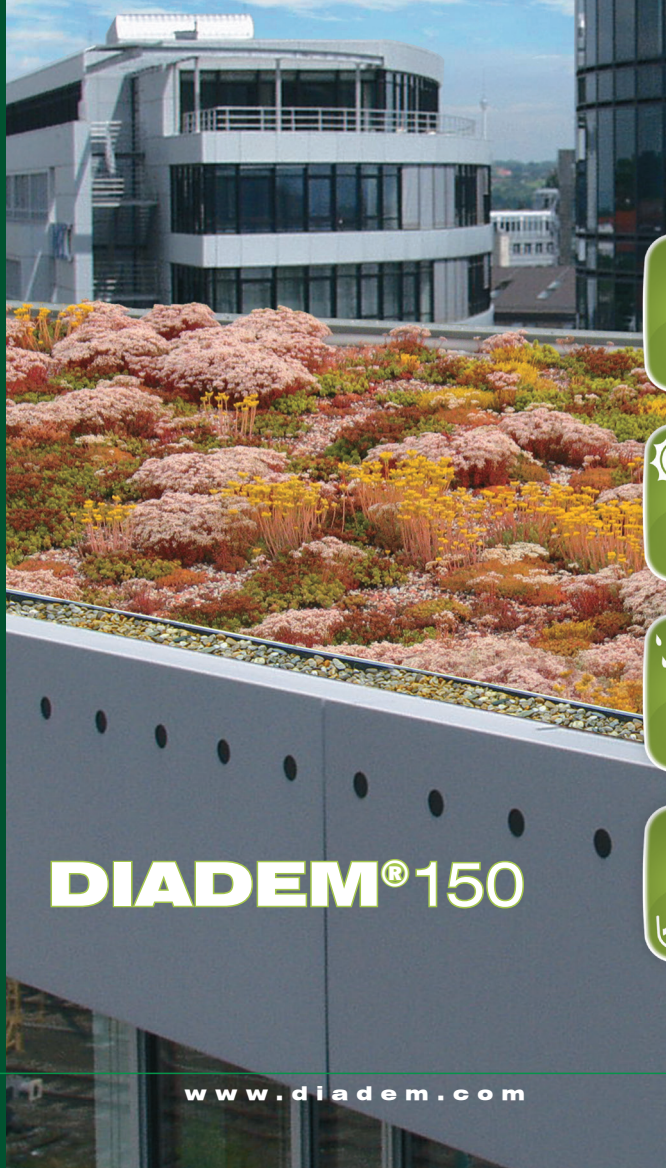




DIADEM[®] 150

Green Roofs Roof Terraces Constructions

... Green Up the Roof!



DIADEM[®] 150



DIADEM®150



DIADEM®150 - as its name indicates - is the crowning glory of a building. The range of plants which may be employed here is much wider than the sedums normally used for extensive planting because dianthus, alliums, grasses, wild flowers and herbs can establish themselves, too. The vegetation is therefore much more colourful, varied and stable. Besides a perfectly-judged combination of layers, the DIADEM®150 system integrates appropriate and well thought out technical solutions which facilitate the professional building of drainage elements, boundaries or even terraces. So as to enhance the aesthetic appeal and practical usefulness of the roof, tiles or slabs may be used to create paths or islands of rest without penetrating the water insulation. This can transform a roof into a favourite haunt for even the most demanding of clients.

Technical Data	Unit	DIADEM®150
Product number		810101
Total height	cm	5-15
Dry weight	kg/m ²	up to 125
Saturated weight	kg/m ²	up to 150
Normal speed of installation*	m ² /h	25

* with conventional technology



Habitat



Living space



Moderation of thermal fluctuations



Stormwater retention

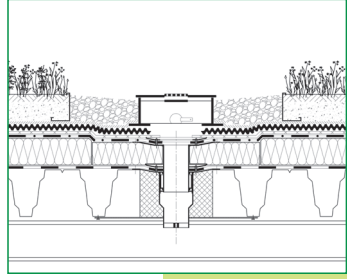


Blocking the noise

DETAILS

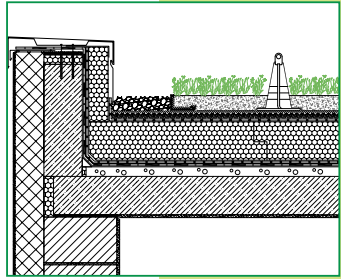
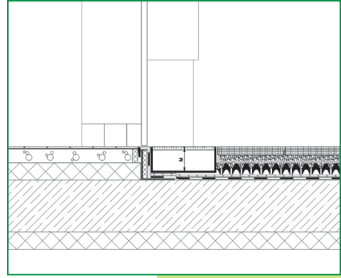
■ Inspection Boxes

Where a roof outlet is located within a vegetated area, an inspection box will need to be installed, not only to permit inspection of the drainage system, but also to prevent its contamination and to stop plants from growing over the outlet. The inspection box is placed directly on the drainage layer, no further fixing is required. Approximately 1 foot wide gravel strip is created around the inspection box, which keeps vegetation away from the outlet.



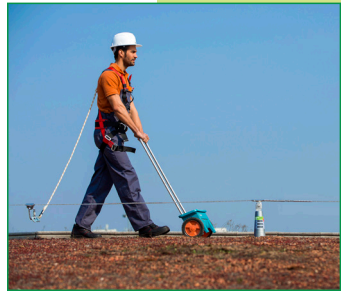
■ Terrace Door Drainage

Drainage channels should be installed in front of terrace doors or deep-set window frontages, and where roof and walls adjoin, to keep rainwater away from the building. At these critical locations, The DIADEM® system offers a number of high-quality and professionally approved drainage channel designs.



■ DiaSafe® Ballasted Fall Protection System

Personnel maintaining a roof must be provided with safety equipment. The DiaSafe® Ballasted Fall Protection System may include anchoring points and/or anchoring cables to be installed on the roof without penetrating the roof membranes. The DiaSafe® Ballasted Fall Protection System is integrated into the DIADEM® green roof and the system has been approved to EN 795:2012.



INSTALLATION INSTRUCTIONS

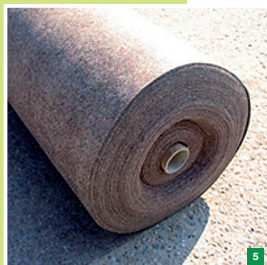


First of all verify that roofing membrane work is complete and ready for installation of green roof, and consider the roof load bearing capacity not just for the green roof, but for temporary water storage functions as well.



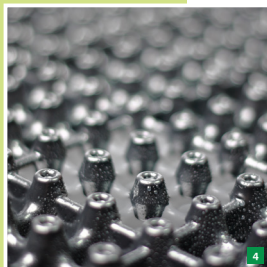
6 FLW-400* Root Resistant Membrane

In case the waterproofing membrane is not root resistant, a separate root barrier should be placed. Root-barriers must not be installed above the XPS panels in case of inverted build-up system. The installation process is similar to a traditional single layer water insulation procedure. Never make cuts directly on the waterproof membrane. The barrier needs to be weighted if left exposed. It is actually preferable to accomplish the installation all at once, instead of having to interrupt the process after installing the barrier. The completions at barrier terminations should follow the specific project design, and not left exposed for weather and sunlight.



5 VLU-300 Protection Membrane

This product guards the surface of the roof from physical damage. The protection layer is laid over a root-resistant seal or the root barrier. The technical data of the DIADEM® Protection membranes satisfy or exceed the specifications of the DIN 18195 specification.



4 DiaDrain-25H Drainage and Reservoir Boards

DIADEM® Drainage and Reservoir Boards are made of stable and durable recycled plastic, which make them lighter and more environmental friendly than a mineral drainage layer.



3 VLF-150 Filter Membrane

These polypropylene filter membranes inhibit the leeching of fine particles from the soil into the drainage layer. The benefits of a VLF-150 Filter membrane include low weight by unit area, high tensile strength and excellent permeability.

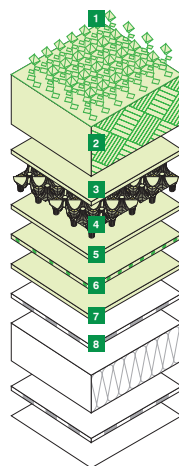
2 SEM Growing media

The DIADEM® SEM planting growing media is composed of a mineral bulk mixture, with an optimized organic content for the favourable growth of the plants. The soil is grain selected and free from building rubble and other unsuitable materials. It is very suitable for multi-layered extensive roof garden projects and satisfies or exceeds the requirements of FLL.



1 Vegetation

A wide range of plants – including grasses, sedums and herbs – may be used with the DIADEM®150 system but the ultimate choice rests with the client. The range has been chosen with variety and biodiversity in mind, in order that the vegetation remains stable over a long term, as well as offering overlapping flowering periods to give a varied and colourful aspect year after year.



The list below is just a small selection from the types available.

English name	Botanical name	Height	Flowers	Color of flower
Maiden Pink	<i>Dianthus deltoides</i>	15 cm	May – June	bright pink
Cranesbill	<i>Geranium x magnificentum</i>	50 cm	May – June	violet-blue
Stonecrop	<i>Sedum album</i>	15 cm	June – July	white
Evergreen Candyfuf	<i>Iberis sempervirens</i>	30 cm	April – July	white
Snow in Summer	<i>Taurus Cerastium Cerastium tomentosum</i>	10 cm	May – June	white
Stonecrop	<i>Sedum floriferum</i>	15 cm	June – August	yellow
Blue Fescue	<i>Festuca glauca</i>	20 cm	May – June	grey
Creeping Thyme	<i>Thymus serpyllum</i>	10 cm	June – August	purple
Blue Stonecrop	<i>Sedum reflexum</i>	20 cm	July – August	yellow
Stonecrop	<i>Sedum hybridum</i>	10 cm	June – August	yellow
Tasteless Stonecrop	<i>Sedum sexangulare</i>	15 cm	June – August	yellow
Round-headed Leek	<i>Allium sphaerocephalon</i>	30-70 cm	June – August	purple
Houseleek	<i>Sempervivum ssp.</i>	10 cm	June – July	rose
Two-row Stonecrop	<i>Sedum spurium 'Purpurteppich'</i>	10 cm	July – August	purple

Disclaimer:
DIADEM®150 Sample Pack
Editor: APP Kft.
Fehérvári út 75.
H-9028 Győr

Managing Director:
Péter Cszizmadia

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ACCESSORIES

■ Hydrotechnology

DIADEM® Inspection Boxes are manufactured in accordance with the FLL „Guidelines for the Planning, Execution and Upkeep of Green Roof Sites“, and are suitable for both extensive and intensive planting. The boxes' large footprint protects the roof membranes. A stainless steel grille on top facilitates drainage of surface water. The covers are strong enough to walk on and may be locked for safety and security.

■ Water Drainage Channels

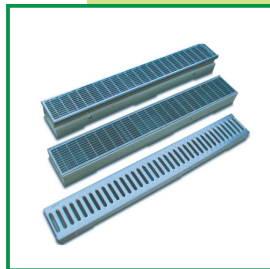
The DIADEM® drainage channels should be positioned along terrace doors, low windows and at terrace-wall junctions. Their use should particularly be considered where there are large vertical surface areas as these also transfer a substantial amount of rainwater. The open underside to these products ensures fast water drainage both lengthways to a drainage pipe and sideways to the drainage boards.

■ KLS-AL-8/12-TK gravel board

KLS telescopic edge profiles are L-shaped and made of aluminum or stainless steel with perforations along the main fold for continuous drainage. The 2m long pieces have an insert of the same length, making it extensible and easily joinable, saving time and making cuts unnecessary. It provides vertical separation between gravel and growing media, it can also be used for edging green roofs until 120mm media depth. Typically they are self supporting and require no membrane penetrations. KLS gravel boards are also available in stainless steel.

■ DiaSafe® Guard safety railing system

The DiaSafe® Guard safety railing system is excellent for separating work areas or escape routes and can be applied to unique roof plans and situations. Thanks to the ballasted fixing, the roof and the parapet wall remains undamaged. Installation is quick and easy. The upright is available in straight, inclined and foldable straight versions.



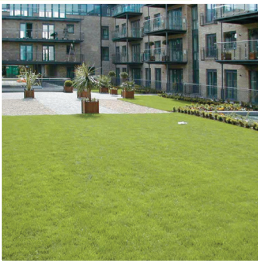


DIADEM® 150

MEADOW

EXTENSIVE GREEN ROOF

An ecologically sound and economic green roof system that provides a meadow effect, which requires only low maintenance.



DIADEM® 350

LIVING SPACE

SEMI INTENSIVE GREEN ROOF

Ideal for the creation of an outdoor living space. This garden roof system utilises basic plant types, which require more maintenance than the extensive roof.



DIADEM® 750

LANDSCAPED ROOF GARDEN

INTENSIVE GREEN ROOF

An intensive green roof system, which may include an irrigation system. Opens up practically all the possibilities of normal ground-level gardening.



DIADEM® 1200

UNDERGROUND STRUCTURES

GROUND LEVEL GREEN ROOF

An elaborate park-like intensive roof garden suitable for public recreation.

Distributor: