

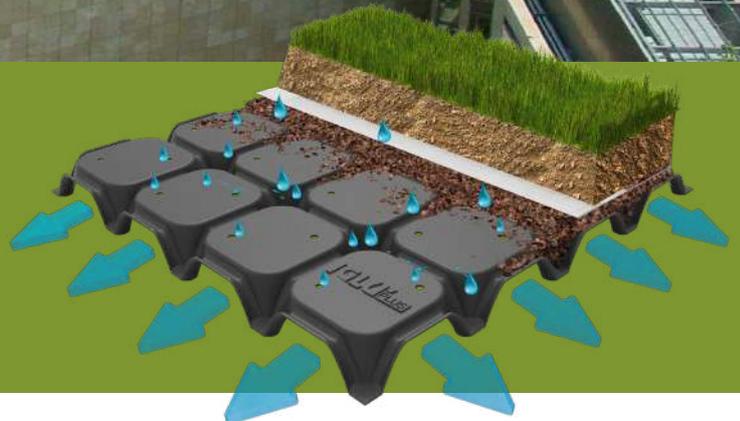


# IGLU<sup>®</sup> green roof

[www.daliform.com](http://www.daliform.com)



Systems for  
roof gardens



**dali**form  
GROUP  
Building Innovation © Creatori dell'Iglù<sup>®</sup>

LEGEND:



Drainage



Respect for the environment



Environmentally friendly, environmentally compatible



Lightening of the structure



Certifications



**DALIFORM GROUP**  
Tel. +39 0422 2083



**EXPORT DEPARTMENT**  
[export@daliform.com](mailto:export@daliform.com)



**TECHNICAL DEPARTMENT**  
[tecnico@daliform.com](mailto:tecnico@daliform.com)



## IGLU® green roof

Iglu® Green Roof is a system of great environmental significance against the continued overbuilding of our cities for the construction of roof gardens and green roofs to protect the waterproofing, and with a guaranteed life of the garden.

The main problem of green roofs was to adjust the drainage to prevent the death of the vegetation due to excessive stagnation or lack of water.

Today it is possible to adjust the drainage of roof gardens thanks to Iglu® Green Roof whose surface area allows for adequate water storage and, at the same time, for the drainage of excess water through the "overflow" holes.

Creating a roof garden the with Iglu® Green Roof system can satisfy the public administrations requirements in terms of building parameters, energy saving, and reducing and mitigating the release of water into the sewer system.

## Advantages

- **Control of meteoric waters:** the green roof with Iglu<sup>®</sup> Green Roof system has a high capacity to retain and store water: up to 90%.
- **Improvement of the macro- and micro-climate:** green roofs humidify the air and contribute to decrease the global warming.
- **Sound insulation:** green roofs using the Iglu<sup>®</sup> Green Roof system mitigate the action of sound and electromagnetic waves, preventing them from entering the building.
- **Improvement of air quality:** atmospheric dust is retained and harmful substances are filtered and purified by the vegetation.
- **Ecological balance habitats for animals and plants** are re-created with the formation of ecological corridors.
- **Mitigation of environmental impact:** nature is integrated into the buildings, helping to requalify and ennoble the urban settings, reducing their visual impact.
- **Creation of new accessible surfaces and green areas:** otherwise unused space, become alive and can be used.
- **Increased durability of the cover:** the waterproof coatings remain protected from temperature changes, UV rays, hail and frost.
- **Increased thermal insulation:** with Iglu<sup>®</sup> Green Roof, the temperature change is drastically reduced and the cushioning elements of the building remain shielded. The improvement of the microclimate inside the building ensures considerable savings on of air conditioning and heating costs.
- **Increased value of properties:** durability, performance, and aesthetics cause a substantial appreciation of the value of the property.



*Extensive green roof.*

A roof-top garden is the most successful solution against the continuous cementification of the territory.

They have been used since ancient times, as demonstrated by the roof-top gardens of Babylon.

Today, the techniques and materials for their creation have evolved and their use have become fundamentally important.



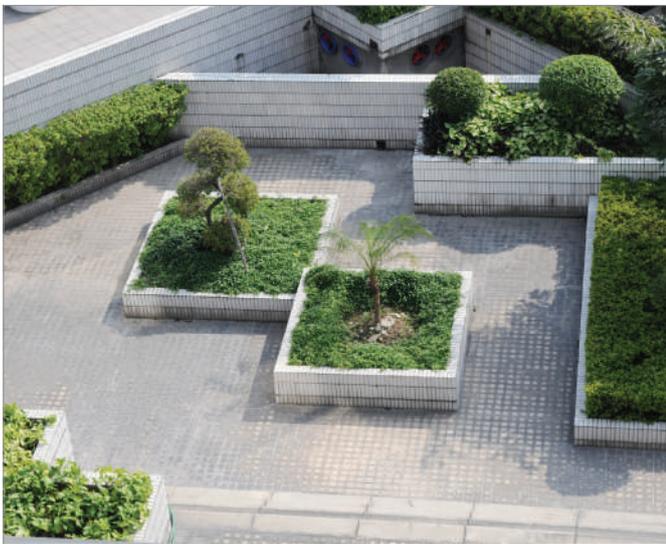
*Intensive green roof.*



*Extensive green roof.*



*Extensive green roof*



*Intensive green roof.*



*Intensive green roof.*

## Proper design of green roofs - the UNI 11235



The UNI 11235:2007 standard "*Guidelines for the design, execution, monitoring and maintenance of green roofs*" is an essential tool for designers and implementers of green roofs.

This standard defines the criteria for the design, execution, control and maintenance of continuous green roofs, depending on the particular circumstances of climatic context, building context, and intended use, as well as the differences between extensive and intensive green roofs, based on energy-related assessments.

Iglü® Green Roof is ideal for creating roof-top gardens, making them safe to create without damaging waterproofing, solving the problem of the passage of systems and providing solutions for draining and ventilating green spaces, which are necessary for the garden. It also makes it possible to level the surface without burdening the structure.

## Extensive roof-top gardens



Extensive roof garden (or green roof) is a type of green cover for medium-large surfaces, with reduced load capacity, which does not require special implementation and maintenance costs, given the limited thickness of the substrate and the type of vegetation belonging to very durable species with shallow roots (grass, sedum, herbaceous perennials).

It can be applied on flat or sloped coverings (up to 30°), and it is particularly suitable for the roofs of industrial buildings, shopping centers, office blocks and garage roofing.

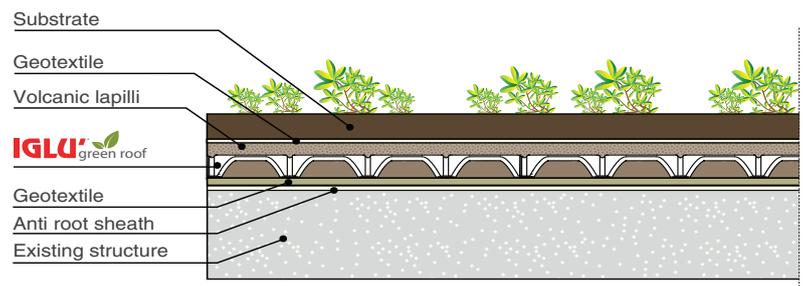
From the economic point of view, it is a valid solution also for covering residential complexes and single-family houses.

Generally it is not a usable type of covering, but it is important especially for environmental mitigation and compensation in highly urbanized contexts.

The certainty of lower heat loss during the winter, but, above all, the high natural cooling in summer, make the extensive green roofs made with Iglu<sup>®</sup> Green Roof an ideal solution also for less useful roofs to be turned green.

### Advantages of an extensive green roof

- Stratigraphies with reduced thickness.
- Use of self-propagating and self-healing low stem plants or grass.
- It does not require any special maintenance.
- Implementation of specific irrigation systems not necessary.
- Lighter weight on the covering.
- Lower cost of construction and maintenance.
- Use on flat and sloped roofs - up to 30°.
- Industrial and handicraft sheds.
- Shopping centers.
- Underground parking lots.
- Condominium garages.



## Intensive green roof



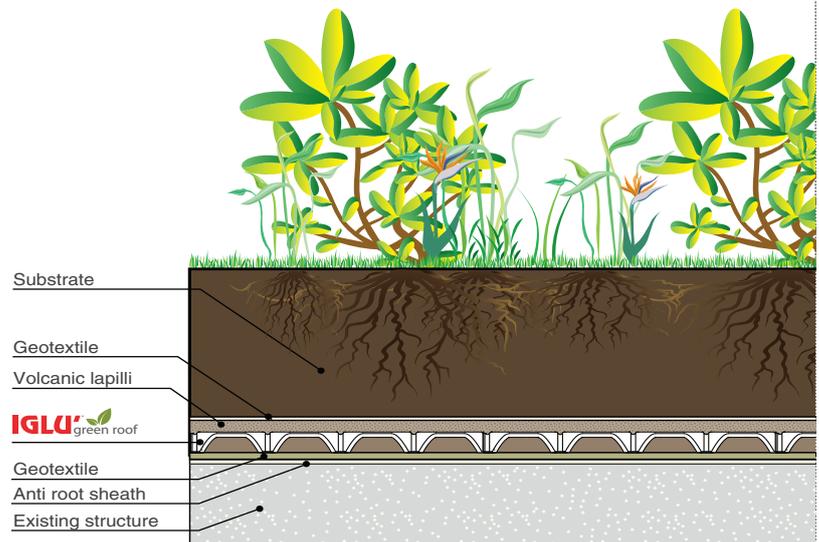
Intensive roof garden (or green roof) is the most representative solution of the traditional garden. This solution allows the choice between a huge number of different species, which also include shrubs and trees of the third magnitude and requires a high degree of maintenance.

The ability to recreate environments which are fully comparable to the traditional gardens on the ground, make this type of covering a fully usable structure.

Coverings of this type are particularly suitable for private homes and hospitals, elderly homes, tourist facilities, covers for underground garages, driveways and parking areas, where high loads and mechanical stress are expected.

### Advantages of an intensive green roof

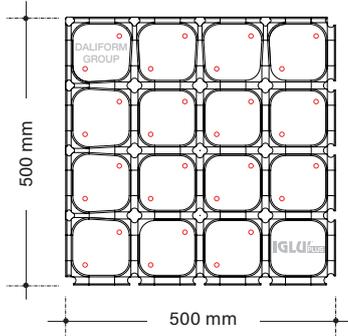
- Stratigraphies with thicknesses up to over 60 cm;
- Heavy loads on the roof;
- Use of bushy plants, medium height shrubs, and small trees similar to those planted in the soil;
- Implementation of specific irrigation systems;
- Full enjoyment of your garden;
- Frequent maintenance;
- It is possible to add furnishing structures to, as well as both pedestrian and vehicular routes.
- Use on all accessible surfaces except for sloping roofs.



## Range

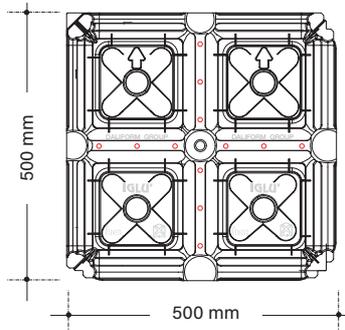
IGLU' green roof

tank



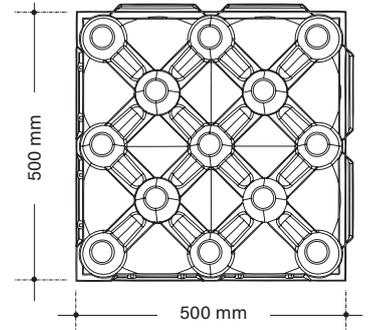
IGLU' green roof

dispersion

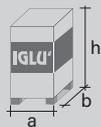


IGLU' green roof

tank/dispersion



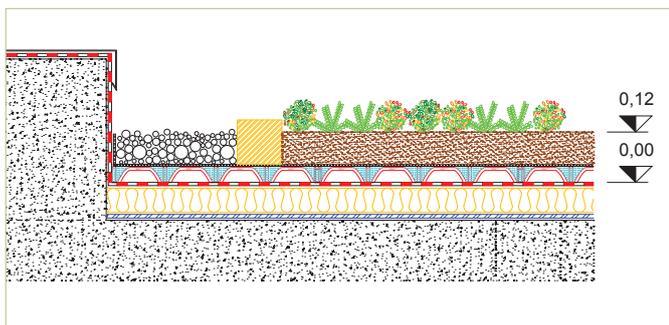
		tank	dispersion	tank/dispersion
	<b>H cm</b>	<b>4</b>	<b>4</b>	<b>5</b>
Useful dimensions *	cm	50x50	50x50	58x58
Weight of each unit	kg	0,865	0,735	1,136
Crush strength	kg/m <sup>2</sup>	6.000	5.000	oltre 10.000
Water reserve	l/m <sup>2</sup>	5,5	-	14
Drainage area	cm <sup>2</sup> /m <sup>2</sup>	~1.000	~1.000	~1.000
Total area of feet "pillars"	cm <sup>2</sup> /m <sup>2</sup>	1.200	210	1.240
Water passage's section	cm <sup>2</sup> /m <sup>2</sup> per side	220	120	-
Pallet dimensions	a x b x h	110 x 110 x 108	110 x 110 x 250	120 x 120 x 256
	kg	359	454	1.104
	Units	400	600	960
	m <sup>2</sup>	100	150	320



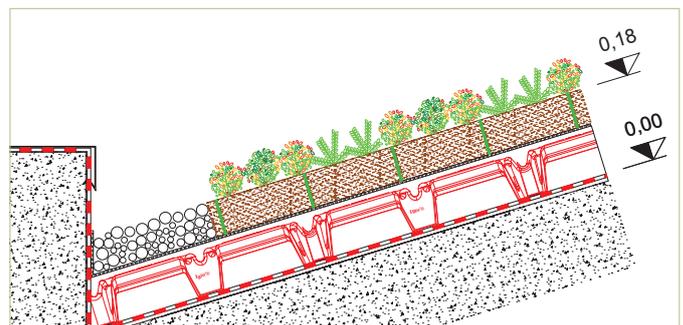
The material does not fear the bad weather and therefore it can be stored outside.

\* In consideration of the recycled material, it is permitted a size tolerance of  $\pm 1,5\%$ .

## Construction details



Construction detail of an extensive green roof.



Construction detail of an extensive green roof on sloped roof.

**IGLU® Green Roof WITH TANK. FORMWORK FOR WATER RESERVE.**

The conformation of the Iglu® Green Roof (with tank) crown allows water to drain only in case of "overflow".

**IGLU® Green Roof WITH DISPERSION. FORMWORK FOR WATER DISPERSION.**

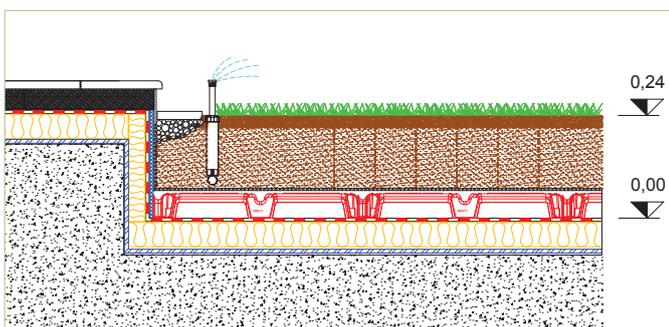
The conformation of the Iglu® Green Roof (dispersion) lower side allows water to drain in order to ensure the maximum dispersion in the shortest possible time.

**IGLU® Green Roof WITH TANK or DISPERSION. FORMWORK FOR WATER TANK or DISPERSION.**

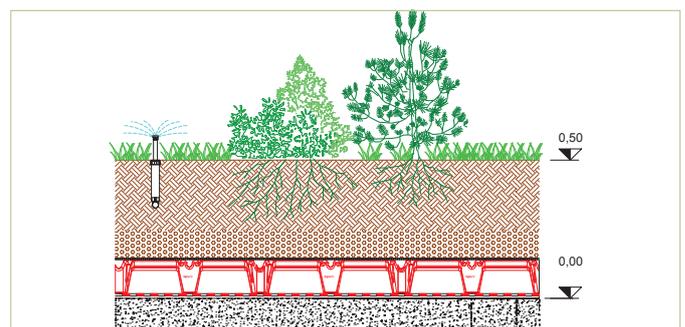
The conformation of the Iglu® Green Roof (tank or dispersion) formwork contributes to regulate urban rainfall runoff, through accumulation and retention, and returning a small percentage of this water to the environment.



dispersion	dispersion	tank/dispersion	dispersion	dispersion
<b>6</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>12</b>
50x50	50x50	58x58	50x50	50x50
0,757	0,789	1,190	0,833	0,865
5.000	5.000	oltre 10.000	5.000	5.000
-	-	18	-	-
~1.000	~1.000	~1.000	~1.000	~1.000
205	200	690	300	260
280	420	-	440	600
110 x 110 x 253	110 x 110 x 254	120 x 120 x 262	110 x 110 x 246	110 x 110 x 249
467	487	1.199	496	515
600	600	996	580	580
150	150	332	145	145



Construction detail of an extensive green roof.



Construction detail of a heavy intensive green roof.

## Specifications

### Extensive roof-top gardens

Supply and installation of anti-root sheath. For extra protection of the waterproofing it is recommended to lay a piece of geotextile (TNT = Non-Woven Fabric) of 200 g/m<sup>2</sup>.

Supply and installation of **Iglu® Green Roof with tank** made of regenerated plastic material (PP), resistant to organic substances, which acts as a collection and draining layer.

Filling of **Iglu® Green Roof with tank** to a depth of 2 cm above the edge, with pumice or volcanic lapilli, particle size 10-12 mm, high level of water absorption.

Laying of 150 g/m<sup>2</sup> geotextile (TNT = Non-Woven Fabric) as a filter layer of separation between the filling material and the substrate. Substrate to a thickness varying between 8 and 20 cm.

Realisation of an irrigation system, if any.

### Intensive green roof

Supply and installation of anti-root sheath. For extra protection of the waterproofing it is recommended to lay a piece of Geotextile (TNT = Non-Woven Fabric) of 200 g/m<sup>2</sup>.

Supply and installation of **Iglu® Green Roof with dispersion** made of regenerated plastic material (PP), resistant to organic substances, which acts as a collection and draining layer.

Filling of **Iglu® Green Roof with dispersion** to a depth of 2 cm above the edge, with pumice or volcanic lapilli, particle size 10-12 mm, high level of water absorption.

Laying of 150 g/m<sup>2</sup> geotextile (TNT = Non-Woven Fabric) as a filter layer of separation between the filling material and the substrate. Substrate to a thickness varying between 20 e 150 cm.

Implementation of an ad hoc irrigation system.

## Daliform Group technical office



### FEASIBILITY STUDY

Support by design professionals at the preliminary and executive stages to determine the technical characteristics of the flooring and the associated costs of gratings.

### ON-SITE SUPPORT

If necessary, our technical staff can be present on-site to help the construction company during the operational phase.

The technical consultancy is only valid for the Daliform Group construction systems.

To contact the technical office: Tel. +39 0422 2083 - tecnico@daliform.com

To obtain updated technical cards, support material, new photos and case studies, go to [www.daliform.com](http://www.daliform.com)

## Logistics - pallet capacity

MEANS OF TRANSPORT	NO. OF PALLETS	
Tractor (8.20/9.60x2.45)	14/16	
Trailer (6.20x2.45)	10	
Tractor+ Trailer type "BIG" (8.40+7.20x2.45)	14 + 12	
Semi-trailer (13.60x2.45)	24	
20 feet container	10*	
40 feet container	20*	

\* The m<sup>2</sup> per pallet can vary based on the type of container.

*The images are merely indicative, by way of example. The information contained in this catalogue could be changed. Request a confirmation or updated information to DALIFORM GROUP, which reserves the right to make changes at any moment without notice. In consideration of recycled material, it is specified that there are tolerance margins caused by environmental factors.*



www.daliform.com

DG\_IGROOF - Rev. 05\_09\_2020

Made in Italy

**daliform**  
**GROUP**  
 Building Innovation © Creatori dell'Iglù®



Ph. +39 0422 2083 - Fax +39 0422 800234  
 info@daliform.com - www.daliform.com  
 Via Postumia Centro, 49 - 31040  
 Gorgo al Monticano (TV) - Italy



Certified Management System UNI EN ISO 9001,  
 UNI EN ISO 14001, UNI EN ISO 45001, SA 8000

Partner of  
 GBC Italy

Rating di legalità: ★★+

