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Protection of the waterproof in retaining walls



KEY:



Air, moisture



Radon



Ventilation



Energy savings



Thermal insulation



Ecological, environmentally friendly

Certifications



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IGLU'BARRIER

Retaining walls and other walls that are in contact with the ground are exposed to damp due to capillary action; added to this is the possibility of damp air resulting from inadequate thermal insulation. This situation can lead to the formation of mould, unpleasant odours and, more importantly, it can compromise the durability of the structure.

It is therefore imperative to select materials that maintain their impermeability to water and water vapour as well as their rot-resistance and mechanical strength over time, even when under loads from construction-site vehicular traffic.

Iglu'® Barrier is a recycled plastic panel built to protect the waterproof layer of retaining walls. By virtue of its technical characteristics, it guarantees an excellent resistance to compression.

The Iglu'® Barrier creates a ventilated space between the waterproof retaining wall and the backfill, therefore eliminating contact between the ground and the waterproofing.















Advantages

Because the thermal insulation used for the external surface of the wall is subject to extremely high stresses due to its continuous contact with the ground, the associated lithostatic load and the effects of moving loads, as well as contact with rainwater, Iglù® Barrier offers optimal performance with regard to:

- protection of the waterproofing membrane;
- better environmental conditions in underground rooms;
- lower incidence of problems with humidity and moisture;
- reducing the "cold wall" effect;
- effective "impact protection" for waterproofing during the backfilling phases of the excavations;
- forming a root barrier to protect the waterproofing;
- · reducing installation costs compared to the traditional system using gravel and a dimpled membrane;
- easy installation;
- ease of storage and handling on site;
- suitability for laying under all weather conditions;
- benefitting the durability of the building, potentially extending its service life and increasing its value.







Applications

The presence and diffusion of moisture in construction works generates a multitude of problems. Discomfort and damage affect both the contemporary building sector and various areas within the restoration and conservation sectors.

Capillary rising damp and infiltration into below-ground structures or into structures used to contain soil are among the principle causes of deterioration in building works.

Due to its special configuration and the natural air chamber that forms between the wall and the panel, the Iglù® Barrier panel protects walls in below-ground living spaces (such as cellars, garages, laundries, taverns, etc.) from both "penetrating damp" (a.k.a. lateral damp) and temperature changes.

The cost reduction compared to traditional systems, the guarantee of eliminating contact between soil moisture and the waterproofing membrane, the excellent resistance to compression combined with the ease of installation and handling on site, make Iglu'® Barrier an essential product for the protection of waterproofing in retaining walls.









Photo gallery











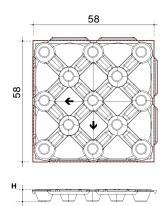




Technical data







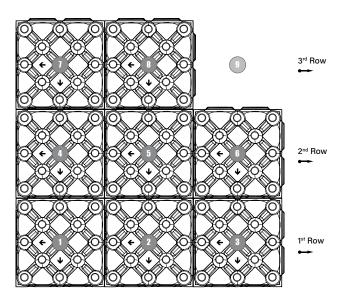
BARRIER	
Working dimensions*	
Weight of each unit	
Compressive strength	
Support foot surface area	
Air chamber	
Pallet dimensions	IGLU' h

H cm ►	5	9	
cm	58 x 58	58 x 58	
kg	1,136	1,190	
kg/m²	> 10.000	> 10.000	
cm ² /m ²	1240	609	
I/m^2	33,26	70	
cm	20 x 120 x 256	120 x 120 x 262	
m²/PAL	1104	1199	
pz/PAL	960	996	
kg/PAL	320	332	

 $^{^*}$ Recyclable material is allowed a size tolerance of \pm 1,5%. The material is waterproof and can therefore be stored outside.

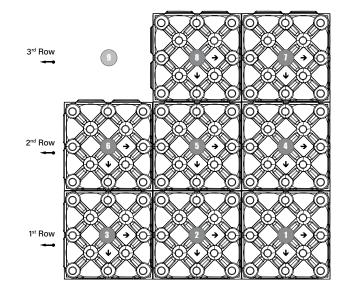
Dry assembly method

"A" SCHEME



Place the first panel in the lower left-hand wall, with an arrow pointing downwards and the other pointing left. Proceed with the assembly from left to right and from bottom to top.

"B" SCHEME



Place the first panel in the lower right-hand wall, with an arrow pointing downwards and the other pointing right. Proceed with the assembly from right to left and from bottom to top.

The Iglu'® Barrier formworks are coupled by means of special clips which give stability and an adaptive capacity, even on curved surfaces. The Iglu'® Barrier panel is easy to lay and handle on site. The staggered arrangement of the support feet, which are wide, smooth, circular and rounded, means that the Iglu'® Barrier panel can withstand a ground thrust of over 10,000 kg/m². In addition, the feet are arranged in such a way that the panel can be shaped with a saw or grinding disc, in any direction and shape, without compromising its mechanical strength.

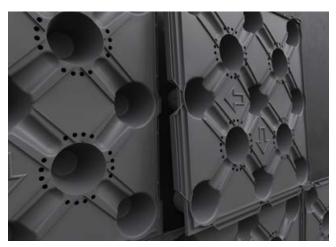


Laying



After applying an adequate waterproofing membrane, start laying the $\mathsf{Iglu'^e}$ Barrier panels.

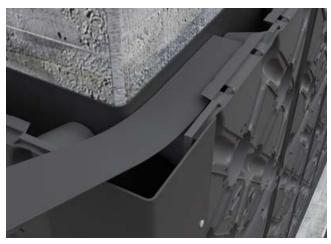
It is possible to attach the support feet to the waterproofing, using polyurethane spray or suitable compatible adhesives. If using bituminous or similar membrane, lightly torch the membrane and attach the panels to it.



The Iglu'® Barrier formworks are coupled through specific clips which give stability and the ability to adjust even on curved surfaces.



Place the angle closing as to avoid infiltrations by attaching it to the Iglu'® Barrier panel with screws or chemical plugs no longer than 3cm (this prevents drilling the waterproofing).



Place the top closing using the proper guard for perimeter sealing, to be inserted between the underground wall and the Iglu'® Barrier panels. Place the draining pipe along the building perimeter, close to the wall.



Place the draining pipe along the building perimeter, close to the wall.



Cover the draining pipe with scree and then with geotextile. After that, proceed with the backfill.



Specifications

Protection of the underground waterproofing cover and insulation of retaining structures by providing Iglu'® Barrier elements in recycled plastic, resistant to chemical and organic substances, with a height of ____cm and a plan view size of 58x58 cm.

Daliform Group Iglu'® Barrier elements are equipped with a special self-blocking coupling for vertical stability and with 39 support feet per m². Their base is circular and rounded, to guarantee proper ventilation of the cavity between the waterproofing membrane and the backfill. This results in an efficient water draining and in the elimination of damp in direct contact with the waterproofing.

Formworks in recycle plastic, such as Iglu'® Barrier, must be produced in "ALAPLEN® CP30", must not release polluting substances, have an Environmental Compatibility Certification and be produced by a Company Certified according to International Standards UNI EN ISO 9001 (Quality), UNI EN ISO 14001 (Environment); UNI EN ISO 45001 (Safety) and SA 8000 (Social responsibility).

The company that supplies the Iglù® formworks must exhibit technical sheet and safety sheet for the product and for "ALAPLEN® CP30" grain texture and must also exhibit the product certificate approved by an EOTA member agency (European Organisation for Technical Approvals).

Inclusive of accessories, waste, cuttings, and all other charges: ______/m² _____

Logistics - pallet capacity

MEANS OF TRANSPORT	NO. OF PALLETS	
Tractor (8.20/9.60x2.45)	14/16	8,20/9,60 x 2,45
Trailer (6.20x2.45)	10	6,20 × 2,45
Tractor+ Trailer type "BIG"	14 + 12	8,40 x 2,45 7,20 x 2,45
(8.40+7.20x2.45)	24	13,60 x 2,45
Semi-trailer (13.60x2.45)	10*	20 feet 20 feet
20 feet container 40 feet container	20*	40 feet

 $^{^{*}}$ the $\mathrm{m^{2}}$ per pallet can vary based on the type of container.

Daliform Group technical office

Modern materials engineering cannot fail to take the design and construction methods into account. Every factor of the construction site is important, and support to the "project" must be seen in its entirety:

- materials selection based on performance criteria;
- technical procurement regulations;
- a detailed description of the application and implementation phases;
- specifications and accurate price analysis.

All this contributes to the definition of "good construction" with precise, agreed rules.

For this reason, the Daliform Group technical office offers ad hoc technical support to designers, managers, clients and companies with the firm belief that the quality of a good product is also characterised by its customer service.

We are therefore at your disposal to assist you with:

- identifying the optimal technology for the specific problem;
- preparing technical specifications;
- price processing and analysis;
- on-site assistance.

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

To obtain up-to-date technical data sheets, support material, new photos and case studies, please consult our website at www. daliform.com The technical advice is valid exclusively for Daliform Group construction systems.

The information contained in this catalogue could be changed. Please request updated informations from 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.



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



