

The retaining and consolidation elements for DAKU ROOF SOIL substrates for green roofs with high slopes are divided into two product categories: **DAKU GRID** and **DAKU GEO**.

DAKU GRID elements are composed of bi-oriented polypropylene geogrids, black in color.

Depending on their use are divided into:

DAKU GRID 3, constituted by a multilayer structure (bi-oriented geogrids co-extruded between them) with “web effect” that allows optimal interaction with the substrate, used in stratigraphy with sloping from 10° to 15° (+/- 15%).

DAKU GRID 4, constituted by a structure in bi-oriented geogrids with quadrangular opening, used for roofs with an inclination from 15° to 25° (+/- 15%).

DAKU GRID 5, constituted by a bi-oriented geogrid of considerable dimensions, with particularly thick ribs and concave section, used as functional element of support for the stabilizing mass of the fall arrest system DAKU SAFETY POINT.

DAKU GEO are elements with an alveolar structure made of anti-erosive polyethylene, green in color, consisting of ovoidal threedimensional cells, internal diameter of approx 300 mm.

Depending on the thickness of DAKU ROOF SOIL substrate provided by the package of green cover, there are two products of different heights: DAKU GEO 75



CONSOLIDATION CONTAINING SUPPORT

(height 75mm), DAKU GEO 100 (height 100 mm) and DAKU GEO 150 (height 150mm) Their function is to hold the substrate on roofs with a slope greater than 15°, avoiding slipping, counteracting the effects of “surface runoff” in the absence of widespread and deep-rooted vegetation.



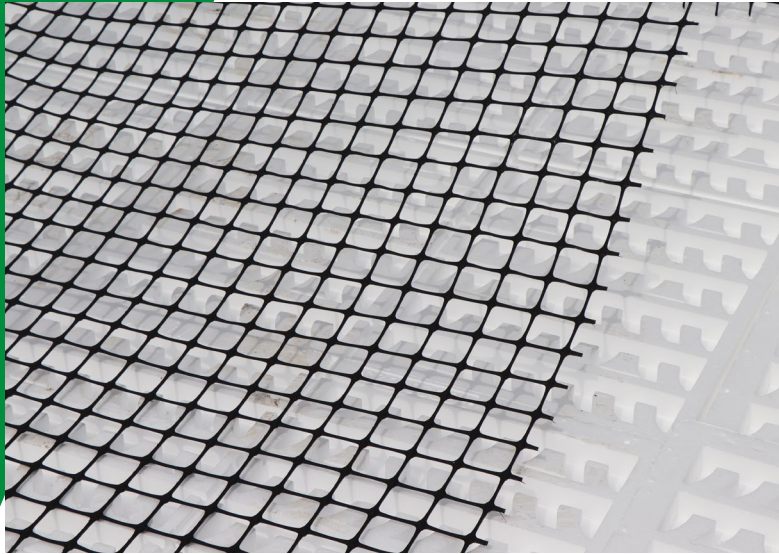
GRID 3/4/5 - GEO 75/100/150
PRODUCTS

METHOD OF APPLICATION (DAKU GRID)

DAKU GRID 3 is laid at the same time of DAKU ROOF SOIL substrate, at about half of their thickness. Any addition can be realized through bindings between the meshes of the net. We recommended the wetting of the substrate at the end of the pose in order to improve the adhesion.

DAKU GRID 4 is laid on DAKU STABILFILTER layers of separation, before the laying of DAKU GEO retaining elements and the substrate. It must be properly anchored at the top of the layer or to intermediate points if necessary, present along the same.

DAKU GRID 5 is used for the installation of DAKU SAFETY POINT fall arrest system. It's laid directly over the elements of accumulation and drainage DAKU FSD and DAKU DRAIN, and subsequently tightened (together with DAKU STABILFILTER) with clamp at the base plate of the pole of the fall arrest system.



TECHNICAL FEATURES

| Product | GRID 3 | GRID 4 | GRID 5 |
|--|--------------------------------|----------------------------|--------------------------------|
| Materiale | Polipropilene di colore nero | | |
| "Wire" thickness | - | - | 3,50 mm (MD) 2,00 mm (TD) |
| "Node" thickness | 5,20 mm | - | 7,00 mm |
| Aperture size (MD x TD)) | 53x 38 mm | 40 x 27 mm | 55 x 55 mm |
| Roll dimensions | 4,00 x 50 m (200 mq) | 4,00 x 75 m (300mq) | 4,00 x 50 m (200 mq) |
| Stiffness at 0.5 % Strain (ISO 10319) | 250 KN/m (MD) 450 KN/m (TD) | - | 900 KN/m (MD) 600 KN/m (TD) |
| Resistance to weathering (EN 12224) | 100% | | |
| Apparent coefficient of friction (EN 13738) | 1,25 | - | 1,20 |
| Strength at 2% Strain (ISO 10319) | - | 10,50 (MD) 10,50 (TD) | - |
| Strength at 5% Strain (ISO 10319) | - | 21,0 (MD) 21,0 (TD) | - |
| Peak tensile strength (ISO 10319) | - | 30,0 (MD) 30,0 (TD) | - |
| Yield point elongation (ISO 10319) | - | 11,0 % (MD) 10,0 % (TD) | - |



The product is made up exclusively of recyclable components



CE conformity in accordance with Directive 89/106/CEE

The technical data given in this data sheet are average values of production and product description. DAKU ITALIA Srl reserves the right to make any changes at any time, for an improvement of the product: the user is required to verify to have the updated data sheets. The quality of the product is guarantee in accordance of rule EN 13163. Product is CFC free.



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METHOD OF APPLICATION (DAKU GEO)

DAKU GEO is placed over GRID 4, support geogrid, to which it is secured with nylon cable ties, or laid directly over DAKU STABILFILTER element of filter and stabilization, if the shape or slope of the roof allows it.

The subsequent filling of DAKU GEO alveolar cells with DAKU ROOF SOIL substrate must be done in a gradual manner, starting from the base of the layer favoring the constipation within them. We

recommend the wetting of the substrate to facilitate the adjustment.



TECHNICAL FEATURES

| Product | GEO 75 | GEO 100 | GEO 150 |
|---|-----------------------------|------------|-----------------------------|
| Material | Polyethylene of green color | | Polyethylene of black color |
| Cell height | 75 mm | 100 mm | 150 mm |
| Cell inner diameter | 200 mm | | 300 |
| Cell wall thickness (ISO 9863) | 1,00 mm | | 1,51 mm |
| Expanded panels dimensions | 5,00 x 10,00 m (50 mq) | | 25 mq |
| Panel unit weight (ISO 9864) | 0,80 Kg/mq | 1,10 Kg/mq | |
| Peak tensile strength (ISO 10319) | 1,20 KN/striscia | | 11,3 KN/striscia |
| Peak tensile elongation (ISO 10319) | 15 % | | |
| Junction tensile shear strength (ISO 13246) | 0.80 KN/junct | | 4,8 KN/junct |
| Junction tensile peel strength (ISO 13246) | 0.35 KN/junct | | |



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