SOLVER.

PRODUCT CARD

Short name

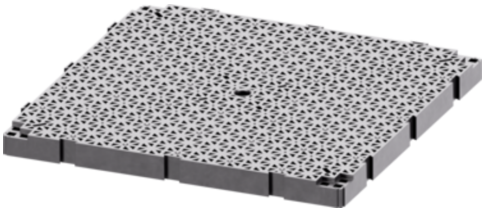
DECS-DSP-(1)

Full name

DeckSafe protective substructure grid 589×589×40 mm for tiles and artificial grass with wind uplift protection

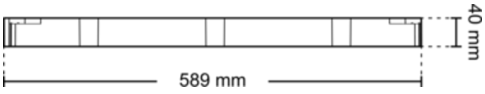
BASE DATA

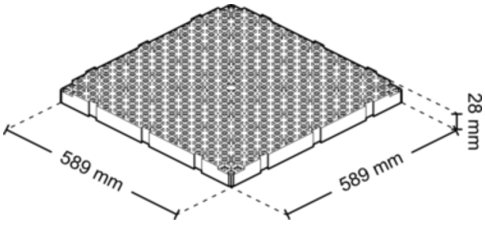
Product group	DeckSafe
Application	• terrace tiles
Code	108.010111
EAN	5 9 0 4 2 7 6 3 4 5 3 4 4



TECHNICAL DATA

Minimum height	40 mm
Maximum height	40 mm
Total dimension - length	589 mm
Total dimension - width	589 mm
Total product dimensions - height	40 mm
Head diameter (top plate)	Ø 0 mm (0 cm2)
Base diameter	Ø 0 mm
Weight	~2.8 kg
Wytrzymałość na obciążenia do	0 kg





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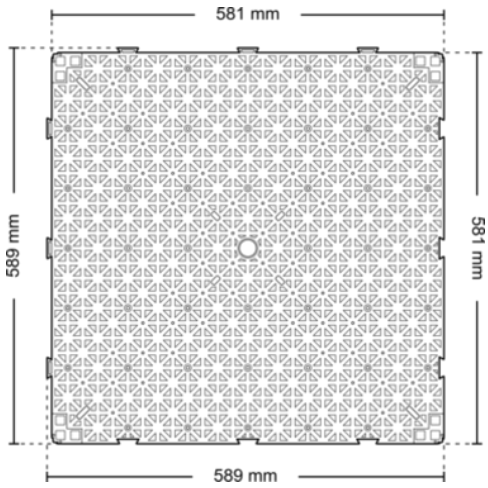
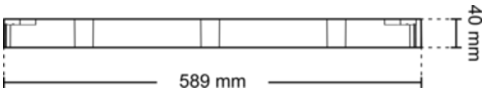
Fire resistance	E
Temperature range	od -20°C do 65°C
Mandatory warranty	Limited 10-year residential and commercial warranty
Country of origin	Poland
Material name	Polypropylene - black regrind
Percentage of recycled material	100 %
Type of waste	• non-hazardous waste - recyclable
Project type	• Fountain • exterior use





What finishing materials can be used
- DeckSafe
- concrete paver
- ceramic tile
- stone pavers

Consists of
DSP Grating

CERTIFICATES

Product certified by the Building Research Institute.
NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2022-2174

EPD
INTERNATIONAL EPD SYSTEM

LOGISTICS INFORMATION

Package	Quantity Packaging Value	Package weight	Empty package weight	Palett	Number of packages on a pallet	Number of pieces on a pallet	Pallet weight	Empty pallet weight

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Package	Quantity Packaging Value	Package weight	Empty package weight	Palett	Number of packages on a pallet	Number of pieces on a pallet	Pallet weight	Empty pallet weight
-	-	- kg	- kg	PALETA DREWNIANA 120x120x220	200	200	578 kg	18 kg

Characteristic features

Characteristics of DeckSafe

1. Enhancing the application possibilities and safety of raised deck terraces

Product features:

1. Construction: Built on a ribbed truss base with numerous vertical, horizontal, and diagonal walls.
2. Top profile: Smooth ribbing ensuring stable adhesion of terrace pavers.
3. Bottom profile: Use of a V-shaped profile, facilitating adhesive penetration and anchoring.
4. Connection system: Ability to connect modules using a "dovetail" system, allowing for the creation of a continuous, rigid substructure grid.

Application

Application of raised deck terraces:

The raised deck terrace system finds wide application in modern residential, commercial, and public utility construction. This solution is intended for creating:

1. terraces, balconies, and loggias
2. usable roofs and green roofs
3. recreational areas around buildings
4. pedestrian walkways, decks, and squares
5. spaces above technical installations requiring easy service access.

The system enables quick installation without the use of mortars and adhesives, ensuring free water drainage and ventilation under the entire terrace surface. Thanks to adjustable pedestals and/or joist construction, it allows for leveling slopes and height differences in the substrate.

Raised deck terraces are a particularly recommended solution where the following are important:

1. durability and resistance to weather conditions
2. aesthetic appearance and even surface
3. easy access to the insulation layer and installations
4. possibility of quick modernization or surface replacement

Projects requiring specialized solutions in the field of safety and functionality.

Construction of raised deck terraces using pavers (ceramic, stone) and other materials, such as artificial grass.

Projects requiring high wind load resistance (e.g., corner terraces, skyscraper roofs, coastal areas).

Structures allowing for the use of pavers with a thickness less than the standard 2 cm.

Safety: Terraces requiring user protection from falling under the terrace in case of paver breakage.

Creating surfaces with varied geometry and mixed finishing materials.

Advantages

Advantages of raised deck terraces:

1. Height and level adjustment – possibility of precise leveling of the surface without the need for screeds
2. Effective drainage – gaps in the terrace drain water to the space under the terrace
3. Easy maintenance – access to installations and substrate without dismantling the entire structure
4. Easy maintenance – access to installations and substrate without dismantling the entire structure
5. Thermal and acoustic insulation – the air layer under the pavers improves user comfort
6. Quick installation and dismantling – possibility of reusing elements when changing the arrangement
7. Durability – resistance to weather conditions and usage loads

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Product advantages:

1. Protection against paver lifting by strong wind gusts.
2. Safety in case of paver breakage: In the event of accidental breakage of a terrace paver, the DECS-DSP grid takes over the user's weight, preventing a fall under the terrace structure.
3. Mechanical adhesive anchoring (V-Slot): Innovative V-type wedge hooks cause the adhesive, once cured, to form a physical anchor (so-called "mechanical interlock"), drastically increasing the adhesion of pavers to the structure.
4. Aesthetics and maintenance: The fasteners are completely invisible on the floor surface. The unique construction allows for the removal of any single paver from the middle of the terrace for substrate inspection.

Installation recommendations

A raised deck terrace does not require permanent anchoring to the substrate. Free water drainage and ventilation must be ensured under the entire surface of the terrace. The substrate must be level, stable, and load-bearing. A slope of at least 1.5–2% towards the drainage must be provided. In the case of higher loads, densify the support grid. Level the terrace height by adjusting the pedestals. At building expansion joints, maintain a gap and seal it with flexible elements. Pedestals cannot be stacked on top of each other - meaning the base of the upper pedestal cannot be placed on the top cap of the lower pedestal. The holes in the base are only for stacking pedestals during packaging. Substrate: The grating should be laid on adjustable pedestals (the STANDARD, SPIRAL and MAX series are recommended) using the dedicated GRP Positioner. Lay the grating surface on the pedestals. Make any necessary cuts. In areas requiring additional support, place extra pedestals. Lay tiles on the grating surface using 2 mm high rubber spacers for laying slabs (PAD-002R). Installation with full substructure: When laying the grids in a ‘dovetail’ pattern as a full substructure, PGC levelling plugs must be used in the corners to prevent surface subsidence (particularly under artificial grass). A central support must be used in the middle beneath the grid. To compensate for thermal deformation of components made of polypropylene (PP), expansion joints must be provided in the sub-grating structure. Fill the expansion joint with expansion tape. Do not attach the corners of the grating along the expansion joint to the adapters on the pedestal heads. 1. Division into expansion fields The sub-structure grid must be divided into independent fields with a maximum dimension of 3.0 m in each direction. 2. Internal expansion joints (between fields) At the boundary of expansion fields, a structural break must be created consisting of: - no connection between elements (no locks/connectors on the expansion line), - maintaining an expansion joint with a minimum width of 15 mm, The expansion joint must allow for the free thermal movement of adjacent fields. 3. Perimeter expansion joints (at facades and fixed elements) An expansion joint of at least 15 mm must be maintained at all fixed elements, in particular at: facades, walls, frames, edging and boundary profiles; The gap must remain free of obstructing elements (adhesive, mortar, clamping elements, etc.). 4. Nature of the expansion joint The expansion joint must provide a genuine separation of the grid structure into independent sections, allowing for the free compensation of the thermal expansion of the PP material. 5. Notes In the event of increased sunlight exposure, dark cladding or a risk of restricted movement of the structure, it is recommended to use the recommended values (20 mm). Installation with optional wind lift protection: Terrace panels should be fixed to the upper surface of the grid using a dedicated adhesive or butyl tape – please contact us for detailed information. The grid, together with the attached panel, is fixed to the bracket head using a central LDF fixing pin, which prevents the system from being lifted by the wind. For the full-surface dovetail joint installation method – see the catalogue, installation method 1 – we recommend using an additional support bracket to brace the decking centrally. An additional central pedestal provides extra support in the centre and prevents the grid from sagging when walking on the decking surface. These recommendations apply to all sizes of decking boards. An additional central pedestal is not required when installing in a configuration that prevents the boards from being lifted by the wind – see installation method 2 in the catalogue – as in this installation method, only slabs with nominal dimensions of 60x60 cm may be used, which are centred relative to the grid and are always supported at all four corners, thus preventing deflection when walked upon.

Tools

- Measure - Spirit level - String line or cross line laser - Pencil or construction marker - Mason's rule - Rubber mallet - Work gloves - Safety glasses - Hearing protection - Dust mask - Metal saw blade or jigsaw with metal cutting blade for trimming elements

Jigsaw for cutting grates along edge constraints.

Recommendations for use

The raised deck terrace is intended for use in accordance with its purpose – as a recreational surface. Do not point-load the pavers (e.g., by placing very heavy objects on a small area). Avoid mechanical impacts that could damage the pavers or the support structure. The terrace surface should be regularly swept, and leaves, sand, and debris that may accumulate in the joints should be removed. At least once a year, check the stability of the pavers and pedestals. After winter or heavy rainfall, check the drainage system for blockages. If looseness or damage is found – perform adjustment or replacement of the elements. If access to the space under the pavers is required (e.g., for installations, drains), they should be carefully lifted using appropriate lifters or lifting tools. If access to the space under the pavers is required (e.g., for installations, drains), they should be carefully lifted using appropriate lifters or lifting tools. In the case of a slippery surface, use anti-slip mats or additional protective coatings, e.g., around the pool.

When using grids under artificial turf or other non-structural material, an additional pedestal must be placed under the grid in the center.

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