



A Tata Steel Enterprise



SAB-GREENBOX – THE SMART GREEN ROOF SOLUTION

The SAB-GREENBOX is an innovative green roof solution developed in-house, specifically designed for the SAB sandwich roof panels by SAB-profiel.

The system consists of a patented vegetation module (SAB-GREENBOX), stylish edge profiles, accessories for a clean edge finish, and an anti-slip safety profile for roofs with a pitch above 10°.

FLEXIBLE AND VERSATILE

The SAB-GREENBOX is available in two variants:

- **Pre-vegetated:** ready for immediate use and instantly green.
- **Non-vegetated:** can be filled and planted on site according to preference.

The non-vegetated version is equipped with smart connecting tabs on two sides. These allow multiple boxes to be easily connected, creating a continuous green zone. In the initial phase, the boxes are protected against wind uplift solely by their own weight at the corners. Once the box is filled, no additional measures are required – the system anchors itself.

SMART WATER MANAGEMENT

What makes the SAB-GREENBOX unique is the way rainwater is retained and discharged in a delayed manner. Part of the water evaporates, while the remainder is released gradually. This allows the green roof to function as a natural buffer during heavy rainfall and contributes to a healthier climate in the built environment.

The performance is measurable: the **runoff coefficient** shows exactly how much rainwater is retained and how much is ultimately drained away – clear proof of the hydrological performance of the SAB-GREENBOX.

BENEFITS OF THE SAB-GREENBOX

- **Water retention:** approx. 20–65 litres/m²
- **Reduction and delay of water runoff:** discharge coefficient Cs = 0.6 (approx. **40% reduction**)
- **Evaporation:** contributes to an improved microclimate
- **CO₂ reduction:** conversion of CO₂ into oxygen
- **Cooling:** evaporative cooling reduces roof surface heating
- **Noise reduction:** particularly during rain and hail
- **Habitat for biodiversity:** valuable living space for insects and birds
- **Aesthetics:** flowering beauty in green

TECHNICAL SPECIFICATIONS SAB-GREENBOX

- **Dimensions:** approx. 666 × 333 × 120 mm
- **Empty weight:** approx. 0.96 kg
- **Filling volume:** approx. 15.5 litres
- **Dry weight:** approx. 16 kg per box
- **Saturated weight:** approx. 25 kg per box
- **Surface load:** approx. 115 kg/m²

As rough guidelines for the **retention volume** (water buffering capacity) one can assume approx. **20–65 litres/m²** at substrate heights of 6–10 cm.



PRE-VEGETATED SAB-GREENBOX

In collaboration with partners, we offer ready-made, pre-grown boxes. These modules combine convenience with optimal performance thanks to an integrated water reservoir and drainage system.

Features:

- Pre-vegetated cassette element made from recycled HD-PE
- Integrated **storage and drainage system**
- Dimensions: **666 × 333 × 120 mm**
- Height incl. plants: **12–19 cm**
- Green coverage: **>95%**
- Plant mix: **16 Sedum species**
- Plant density: **approx. 350 plants per m²**

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The perfect fit