

Elmich Extensive Green Roof



Lightweight Green Roof System

Creating Cities
Where Urban Meets Nature

Our Innovation Your Solution

Elmich Extensive Green Roof converts dull concrete or glaring metal roofs into aesthetically pleasing and environmentally-friendly roofs. It promotes biodiversity, enhances thermal efficiency and amelioration of airborne pollutants. It also filters stormwater runoff and reduces peak flows at source, mitigates urban heat island effect and lowers energy demand of buildings by minimising heat absorption on rooftops.



Trust Brands

Elmich Extensive Green Roof

Elmich Extensive Green Roof has wide applicable range in the landscape, building and construction industries and benefits both the buildings on which they are installed as well as their immediate urban environments. It is especially suitable for pathway shelters, guard and club house rooftops at condos, pavilions, as well as new and existing sheds.



Universal Studios, Singapore

About Extensive Green Roof

An extensive green roof consists of drought-resistant ground cover vegetation grown in a layer of lightweight and mainly inorganic planting media laid over a drainage and water retention layer, positioned on a root-resistant waterproofing membrane.

An extensive green roof, apart from being visually attractive, filters stormwater at source and reduces peak flows that may lead to downstream flooding, treats

airborne contaminants, enhances sound attenuation and prolongs the life of the waterproofing membrane as well as the roof skin by shielding the roof from daily sunlight and UV exposure.

The cooling effect of evapotranspiration by vegetation on roofs, combined with the thermal shielding benefit, reduces energy use, CO₂ emissions, and also mitigates Urban Heat Island Effect.

Before Installation

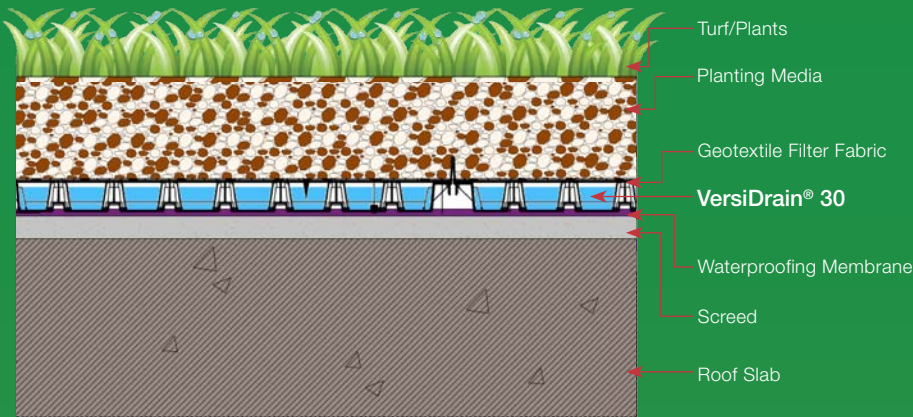


After Installation



HDB Carpark Rooftop, Ang Mo Kio Ave 1, Singapore

Elmich Green Roof - VersiDrain® 30 System



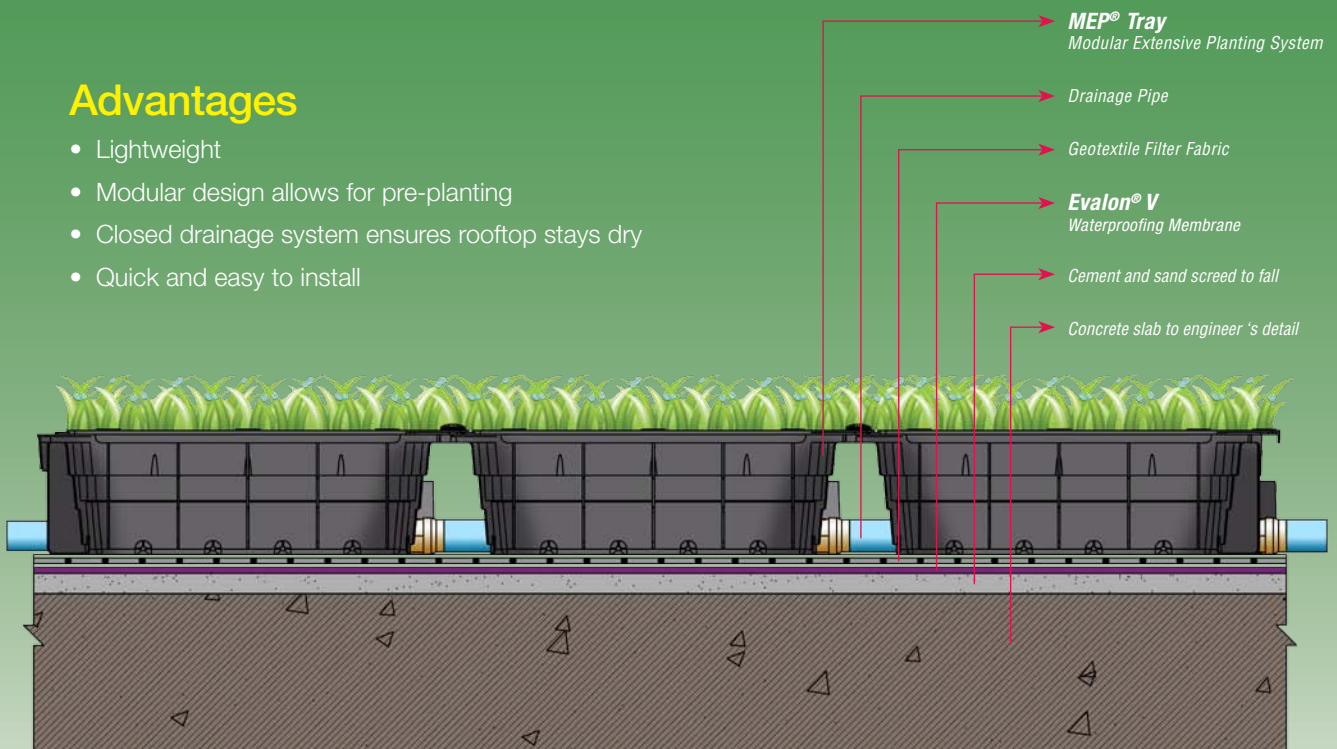
Advantages

- Lightweight
- Easy and quick to install
- Provides efficient drainage
- Retains water efficiently

Elmich Green Roof - MEP Tray System

Advantages

- Lightweight
- Modular design allows for pre-planting
- Closed drainage system ensures rooftop stays dry
- Quick and easy to install



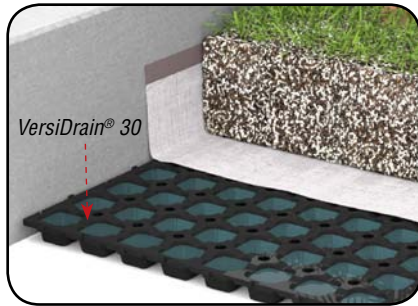
Technical Specifications



Growth Media

EnviroMix® is a lightweight planting media produced from a mix of natural silica and lime-based minerals with proprietary additives.

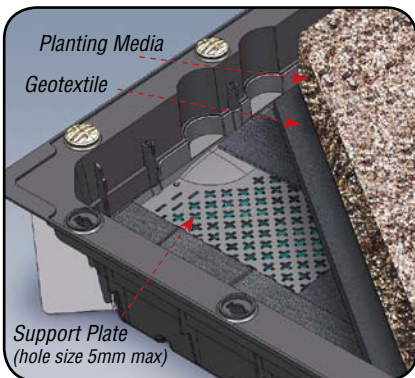
It is approximately 97% inorganic, has high water absorbency and retention capability and supports beneficial microbial activities. It is therefore ideal for planting on low load-bearing areas like metal deck roofs.



Water Retention and Drainage Tray

VersiDrain® 30 is a lightweight interlocking modular green roof tray designed for versatility. Its flexibility allows it to be easily cut to fit different shapes and conforms with ease to curved surfaces. Its easy-to-interlock feature facilitates connecting adjacent trays together for stability.

VersiDrain® 30 comprises a network of reservoirs that stores over 11 litres per square metre of rainwater for irrigating the plants, thus reducing watering requirements and costs, promoting plant growth in a sustainable manner.



Modular Extensive Planting Tray

MEP® Tray is a lightweight planting tray. Made from high-strength UV-stabilised polypropylene, each tray retains 7 litres of water per tray (28 litres per sq m).

The system includes a support plate with a geotextile filter sheet, capillary wicks to draw water from the tray's deep reservoirs to the plant root zone, a confinement grid to hold the planting media in place, especially on sloping surfaces, joining and fastening pegs to secure the trays together, rodent barriers, a base connector, and drainage pipes.

The closed drainage system of the MEP® tray also ensures the rooftop stays dry and excess water can be channeled to a specific drainage or collection point.



Waterproofing Membrane

Evalon® V is a homogeneous ethylene vinyl acetate (EVA) terpolymer thermoplastic waterproofing membrane according to German Standards DIN 18531-2 and DIN 18195-2.

Evalon® V is ISO 14025 certified as an environmentally-friendly product. Its high solids content (>90%) and FLL certified root-resistance makes it an extremely stable membrane with superior properties for roofing and planter applications.



The Elmich security hologram ensures authenticity of the products.

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ELMICH PTE LTD www.elmich.com

Singapore: (+65) 6356 2800

info@elmich.com

Singapore | Australia | Germany | Malaysia | Switzerland | USA

