

Grass Grid

(1) Product Definition



Modular Reinforcement

An interlocking grid system that distributes weight evenly across surfaces, eliminating localized soil compaction and protecting delicate turf root systems from damage under repeated traffic.



Durable Eco-Materials

Manufactured from high-strength HDPE, PP, or recycled polymers, offering superior UV resistance and longevity. This sustainable construction ensures minimal environmental footprint throughout its lifecycle.



100% Natural Permeability

Preserves natural water drainage to recharge groundwater and reduce surface runoff. This green infrastructure solution maintains the aesthetic of living grass while providing a stable, load-bearing surface.

Grass Grid is the ideal solution for creating stable, eco-friendly surfaces in high-traffic areas such as pathways, event spaces, and light vehicle parking. By merging structural stability with ecological benefits, it transforms traditional landscaping into a functional, sustainable asset that supports both human use and environmental health.

(2) How It Works

1 Grid Installation

Interlocking grids are unrolled and connected across the prepared sub-base, forming a flexible framework that conforms to the terrain's natural contours for uniform support.

2 Cell Filling

Cells are filled with gravel, soil, or native vegetation. This locks infill materials in place, preventing lateral movement while maintaining structural integrity under load.

3 Load Distribution

The rigid matrix distributes vertical and horizontal forces evenly across the surface, minimizing ground settlement, rutting, and deformation even under heavy vehicle traffic.

4 Long-Term Stabilization

Creates a permanent erosion-resistant layer that withstands freeze-thaw cycles, heavy rainfall, and environmental stressors for decades of reliable performance.

(3) Key Benefits



Ground Reinforcement

Transforms soft/unstable soils into load-bearing surfaces capable of supporting heavy machinery and traffic.



Permeable Surface

Reduces stormwater runoff by up to 85%, replenishing groundwater and preventing pooling.



Protects Vegetation

Supports root growth while shielding plants from compaction, fostering self-sustaining green cover.



Erosion Control

Locks soil particles in place on slopes and embankments, preventing washouts and land degradation.



Easy Installation

Lightweight, flexible design installs in hours by hand—no specialized tools or heavy machinery required.



Durable Performance

UV-stabilized HDPE resists chemicals and extreme temperatures, delivering a 50+ year service life.



Sustainable Solution

100% recyclable material supports green infrastructure goals and qualifies for LEED credits.

Cost-Effective

Reduces excavation needs and maintenance costs significantly compared to traditional paving.

(4) Applications

- **Grass Parking Areas**– Eco-friendly permeable paving that preserves green space while supporting vehicle loads.
- **Emergency Access Roads**– Robust load-bearing for fire lanes and critical service vehicle routes in all weather.
- **Residential & Commercial Driveways**– Low-maintenance, anti-slip surfaces for private homes and business access points.
- **Parks & Recreational Zones**– Safe, durable ground cover for walkways, picnic areas, and playspace perimeters.
- **Green Infrastructure**– Reduces urban runoff, supports rainwater harvesting, and enhances soil permeability.
- **Sports & Golf Courses**– Turf reinforcement for cart paths, tees, and high-traffic field edges.
- **Event & Overflow Parking**– Temporary ground stabilization for festivals, outdoor markets, and seasonal lots.

(5) Technical Specifications

Model	Size (mm)	Load (t/m ²)	Material	Temp (°C)	UV Resist
GG41-38	410x410x38	300	HDPE	-40~+80	Excellent
GG41-48	410x410x48	450	HDPE	-40~+80	Excellent
GG41-68	410x410x68	600	HDPE	-40~+80	Excellent
GG50-38	500x500x38	350	HDPE	-40~+80	Excellent
GG50-68	500x500x68	700	HDPE	-40~+80	Excellent

Material Advantage:All HDPE-based models offer superior chemical resistance (pH 4-9), thermal stability, and are 100% recyclable, making them ideal for sustainable civil engineering projects.