

GREEN TERRAMESH®
BIO POLIMAC®

Green TerraMesh® is a preassembled modular system used to build reinforced soil structures with an inclined vegetative face, designed to blend into the natural environment. The units are manufactured from a continuous element of double twisted wire mesh type 8x10, made of BIO PoliMac® coated steel wire.

The BIO PoliMac® polymer coating is made from ISCC PLUS-certified plastic which can originate from recycled fossil material, recycled bio-based material and plant-based material.

The use of recycled bio-based polymer allows a reduction of CO₂ emissions greater than 150% compared to the equivalent polymer obtained from fossil feedstock⁽¹⁾.

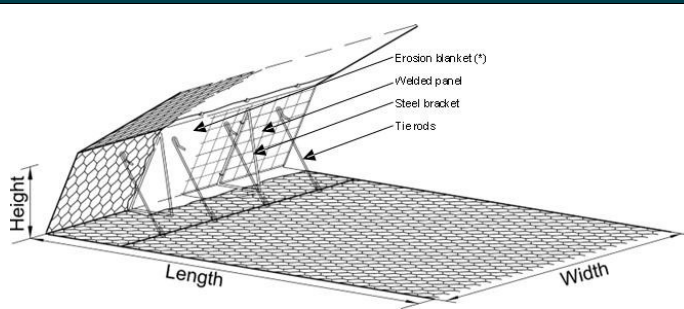
They are produced in compliance with The Construction Products (Amendment etc.)(EU Exit) Regulations 2020 on the basis of UKAD 200026-00-0102 and UKTA-0836-22/0022.



GREEN TERRAMESH® PERFORMANCES			Green TerraMesh®	
Physical Properties	Standard	Unit		
Steel wire diameter (int. / ext.)	EN 10218-2	mm	2.20 / 3.20	
Selvedge wire diameter (int. / ext.)	EN 10218-2	mm	2.70 / 3.70	
Galmac coating	EN 10244-2	Class	Class A	
Mechanical Performances				
Mesh Tensile Strength	EN 10223-3	kN/m	40 ± 5	
Mesh Punching Load	ISO 17746	kN	41 ± 5	
Design Performances				
Long Term Design Strength (LTDS) ⁽²⁾	BS 8006-1	kN/m	32.1	45.8
Pullout factor ⁽³⁾	EN 13738	-	Silt Fine Sand Coarse Sand Fine Gravel	0.3 0.5 0.65 0.9
Direct shear factor ⁽⁴⁾	EN ISO 12957-1	-	> 0.9	
Interface friction factor with geogrids ⁽⁵⁾	EN 13738	-	0.54 - 0.65	
Durability Performances				
Service life of polymer coating at 25 °C	UL 746B EN 60216-8	Years	> 125	
SO ₂ corrosion resistance	ISO 6988	Cycles	> 28	
Salt Spray (5% DBR)	ISO 9227	Hours	> 25,000	
UV resistance (@ 2,500 hours) ⁽⁶⁾	ISO 4892-3	%	< 25	
Abrasion resistance in dry conditions	ASTM A975	Cycles	> 300	> 400
Abrasion resistance in wet conditions	ISO 22182	Weight loss	< 2 %	
Brittleness Temperature	ASTM D746	°C	< -35	
Corrosion Spread (@ 2,500 hours)	ASTM A975	-	Corrosion length less than a mesh opening	

Environmental and Sustainability Properties of the Bio Polimac coating	Standard	Unit	
Global Warming Potential (GWP _{100 yrs})	EN 15804	kgCO ₂ -equiv / kg product	< 2.00
Certified Mass Balanced Material	ISCC PLUS		> 80%
Leachate Test	EPA 6020B	µg / L	Lower than the limits set by regulations ⁽⁷⁾
PFAS in Water Test ⁽⁸⁾	EPA 537.1	ng / L	Not detected
Smoke toxicity	ISO 5659-2 EN 17084	-	Index of toxicity CIT _G (8) < 0.10
Environmental Harmlessness	M GEOK E:2016	-	Environmentally Uncritical

Green Terramesh



(*) As fine material retainer, Green TerraMesh® Water type units use a polypropylene 3-dimensional geomat, Green TerraMesh® Soil type units use a polyester or fiberglass fabric.



1301-CPR-1230

UKTA-0836-22/0022



0836-CPR-24/F7078



TerraMesh® Green sizes

Length (m)	Width (m)	Height (m) / Slope angle
TerraMesh® Green Light		
3	3	0.76 / 70°
4	3	0.73 / 65°
5	3	0.70 / 60°
6	3	0.57 / 45°

Accessories^(*):

Stainless Steel C-Rings:

- Diameter: 3.00 mm
- Tensile strength > 1,550 Mpa
- Pull-apart strength > 2.0 kN
- Max spacings: 200 mm

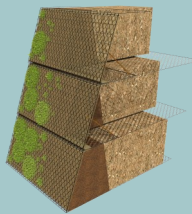
All sizes and dimensions are nominal. Tolerances of ± 5% shall be permitted

(*) The accessories are NOT included, unless explicitly mentioned in the price offer. For additional details, see the installation manual.

DESIGN THE CHANGE



Designed to blend into the natural environment, TerraMesh Series undergoes rigorous and continuous testing campaigns to meet the performance and environmental demands of today's civil engineering projects.



Tested connections between TerraMesh units forming the facing and Maccaferri geogrid primary reinforcements, provided the relevant **interface friction factor** to be used in design of Paramesh structures.



TerraMesh Green

- (1) Information provided by the ISCC PLUS certified raw material supplier outside of scope of the ISCC PLUS certification
- (2) LTDS value valid for sandy soils with particle size < 2 mm; for sandy gravels (< 9.5 mm) the LTDS value should be divided for a $f_{nr}=1.15$.
- (3) k_{po} factor as per EN 1997-3:2025 Eurocode 7 - Geotechnical design. - Part 3: Geotechnical structures
- (4) f_{ds} factor as per EN 1997-3:2025 Eurocode 7 - Geotechnical design. - Part 3: Geotechnical structures
- (5) The value of the interface friction factors varies with the specific geogrid; tests carried out on Terramesh double twist wire mesh in combination with Maccaferri geogrid reinforcements both embedded in compacted soil at the KIWA laboratory (Greven, Germany – 2024);
- (6) UTS/elongation @ break of the base compound after 2,500 hrs exposure to QUV-A do not change more than 25% from initial test results.
- (7) Test preparation in accordance with EPA 1312; The presence or not of 31 different metals were analysed in the leachate. Regulations: (a) Water Framework Directive 2000/60/EC; (b) CCME Water Quality Guidelines for the Protection of Aquatic Life, Freshwater; (c) U.S. EPA National Recommended Water Quality Criteria (Aquatic Life, Freshwater), 2006.
- (8) The presence or not of 28 different PFAS were analysed. The PFOS and PFOA were not detected at < 2 ng/L, while other PFAS and their derivatives were also not detected between < 2 ng/L and < 4 ng/L.

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