

WALLS UK LTD

SOLE MANUFACTURERS AND SUPPLIERS ECO-MSE™ BAG SYSTEM

TECHNICAL DATASHEET - ECO-MSE™ BAG

Product Description

Green Gravity Walls' ECO-MSE™ geotextile bags are engineered to deliver reliable performance in retaining wall construction, slope stabilisation, and erosion control.

Manufactured from high-strength, non-woven polypropylene, the bags provide a sustainable, concrete-free alternative for civil engineering and landscaping applications.

Constructed from **140 GSM geotextile**, the ECO-MSE[™] bag system offers a **100+ year design life**. The material is **non-biodegradable**, **non-toxic**, **and resistant to UV degradation**, **chemical exposure**, **and biological decay**, ensuring durability even in demanding environments.



Independently tested to international standards, ECO-MSE[™] bags demonstrate excellent resistance to tensile forces (ASTM D4632), tear strength (ASTM D4533), and puncture (ASTM D6241), providing dependable structural integrity under load.

The geotextile fabric is designed for controlled water permeability, reducing hydrostatic pressure while maintaining soil stability. Laboratory tests to **EN ISO 12956** (pore size) and **EN ISO 11058** (water flow rate) confirm its filtration capacity—allowing water to pass freely while retaining soil particles. This prevents clogging and supports long-term performance in retaining wall, drainage, and erosion control applications.

By enabling vegetation growth, ECO-MSE[™] bags blend seamlessly into natural environments, becoming carbon-neutral over time while contributing to **Biodiversity Net Gain (BNG)**.

















WALLS UK LTD

SOLE MANUFACTURERS AND SUPPLIERS ECO-MSE™ BAG SYSTEM

Product Dimensions

❖ EMPTY ECO-MSE™ BAG:

Width: 390mmLength: 880mm



❖ GRANULAR FILLED ECO-MSE™ BAG

Width: 340mmLength: 780mmHeight: 120mm



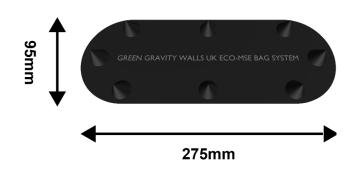
❖ COMP BLEND FILLED ECO-MSE™ BAG:

Width: 340mmLength: 780mmHeight: 150mm



❖ ECO-MSE™ RETAINING PLATE:

Width: 95mmLength: 275mmHeight: 40mm











WALLS UK LTD

SOLE MANUFACTURERS AND SUPPLIERS ECO-MSE™ BAG SYSTEM

ECO-MSE™ Bag Conformance

PROPERTY	METHOD	MEAN	SD
Mass per unit area (g/m2)	ASTM D5261	137.20	14.62
Static Puncture (N)	ASTM D6241	1330	182
Grab tensile	ASTM D4632		
M-Way grab strength (N)	ASTM D4632	499.90	69.32
M-Way apparent elongation (%)	ASTM D4632	51.80	8.06
X-Way grab strength (N)	ASTM D4632	468.50	35.36
X-Way apparent elongation (%)	ASTM D4632	70.70	14.58
Trapezoid tear strength	ASTM D4533		
Tearing thro' M-Way (N)	ASTM D4533	161.85	27.48
Tearing thro' X-Way (N)	ASTM D4533	150.17	16.48
Characteristic opening size	EN ISO 12956	O90 = 60µm	
Water Permeability	EN ISO 11058		
Velocity Index (VH50) ms-1	EN ISO 11058	0.106	
Flow rate (I/m2/s)	EN ISO 11058	106.40	20.91



















WALLS UK LTD

SOLE MANUFACTURERS AND SUPPLIERS ECO-MSE™ BAG SYSTEM

Resistance to weathering EN 12224 - CONTROL					
	PROPERTY	MEAN	SD		
M-WAY	Tensile Strength (N/50mm)	323.76	18.85		
	Ext. (%) at max. load	58.20	6.27		
¥	Tensile Strength (N/50mm)	289.56	11.82		
X-WAY	Ext. (%) at max. load	64.90	3.65		
Resistance to weathering EN 12224 - EXPOSED					
	Resistance to weathering EN 12224	- <u>EXPOSED</u>			
	Resistance to weathering EN 12224 PROPERTY	- <u>EXPOSED</u> MEAN	SD		
ΑΥ			SD 40.79		
M-WAY	PROPERTY	MEAN			
X-WAY M-WAY	PROPERTY Tensile Strength (N/50mm)	MEAN 359.22	40.79		















