



# BIONET C125BN

## *Product Specification*

C125BN is a high-performance erosion control matting, designed to be used in high flow applications where environmental sensitivity and fine soil retention is critical.

[www.salixrw.com](http://www.salixrw.com)

**Salix**



# BioNet C125BN

For erosion protection and habitat creation



## Product Description

The long-term double net erosion control blanket shall be a machine-produced mat of 100% coconut fibre with a functional longevity of up to 24 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fibre netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as Leno weave) to form an approximate 1.27 x 2.54 cm mesh. The blanket shall be sewn together on 3.81 cm centres with a degradable thread. The blanket shall be manufactured with a coloured thread stitched along both outer edges (approximately 5-12.5 cm from the edge) as an overlap guide for adjacent mats.

## Sustainable Product

Salix's coir products are made from sustainable sources and support a village in Sri Lanka. The coir is sourced exclusively from organically managed plantations, with excess coir husk returned to the soil as a natural fertiliser. Due to their woody characteristics and high lignin content, the fibres take five to seven years to biodegrade, providing sufficient time for vegetation to establish and stabilise the soil. Additionally, the fibres are pH neutral, making them suitable for most plant species. As the coir breaks down, it remains inert and does not release any toxic tannins or harmful compounds into the environment..

## Material Content

Matrix	100% Coconut Fibre	0.27 kg/m <sup>2</sup>
Netting	Leno Woven 100% biodegradable jute 100% biodegradable jute	4.5 kg/100 m <sup>2</sup> 3.76 kg/100 m <sup>2</sup>
Thread	Biodegradable	

## Standard Roll Sizes

Width	2.4 m
Length	35 m
Weight ± 10%	30 kg
Area	84 m <sup>2</sup>
	Leno Top and Bottom

## CO2 Emissions

80.5gCO<sub>2</sub>e/m<sup>2</sup>\*

\*Independently verified by carbon product assessment







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Bench Scale Testing (NTPEP)		
Test Method	Parameters	Results
ASTM D7101	50 mm/hr – 30min 100mm hr – 30min 150mm hr – 30min	SLR** = 11.25 SLR** = 16.37 SLR** = 23.82
ASTM D7207	Shear at 12.7 mm soil loss	136 Pa
ASTM D7322	Top Soil, Fescue, 21 day incubation	257% improvement of biomass
<small>* Bench scale tests should not be used for design purposes  ** Soil Loss Ratio = Soil Loss Bare Soil/ Soil Loss with RECP</small>		

Maximum Permissible Shear Stress	
Unvegetated Shear Stress	112 Pa
Unvegetated Velocity	3.05 m/s

Slope Design Data – C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 6 m	0.0001	0.018	0.050
6-15 m	0.003	0.040	0.060
≥ 15 m	0.007	0.070	0.070

Index Property	Test Method	Typical
Thickness	ASTM D6525	5.84 mm
Resiliency	ECTC Guidelines	85%
Water Absorbency	ASTM D1117	365%
Swell	ECTC Guidelines	40%
Smoulder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	1218 mg-cm
Light Penetration	ASTM D6567	16.2%
Tensile Strength – MD	DIN EN ISO 10319: 2008-10	4.2 kN/m
Elongation – MD	DIN EN ISO 10319: 2008-10	4.8%
Tensile Strength – CMD	DIN EN ISO 10319: 2008-10	3.7 kN/m
Elongation – TD	DIN EN ISO 10319: 2008-10	4.5%

Roughness Coefficients – Unvegetated	
Flow Depth	Manning's n
≤ 0.15 m	0.022
0.15 – 0.60 m	0.022 – 0.014
≥ 0.60 m	0.014

