

General Specifications for RoLanka erosion control mats

BioND-TRM 100 - Bristle Coir-Synthetic TRM

The blankets shall be woven from machine spun bristle coir twines reinforced with two polypropylene strands. Coir twines shall be made of bristle coir fiber obtained from freshwater cured coconut husks, which shall be machine spun to a uniform diameter. The blanket shall also conform to the following properties.

Property	Test Method	BioND-TRM 100
Weight	ASTM D 3776	29.6 oz / sy (1000 g/m ²)
Thickness	ASTM D 1777	0.38 inch (9.5 mm)
Dry Tensile Strength	ASTM D 4595	
Machine Direction (warp)		2394 lbs/ft (35 kN/m)
Cross Direction (weft)		1425 lbs/ft (20.8 kN/m)
Wet Tensile Strength	ASTM D 4595	
Machine Direction (warp)		2100 lbs/ft (30.6 kN/m)
Cross Direction (weft)		1250 lbs/ft (18.2 kN/m)
Open area	Calculated	40%
Recommended slope		>1:1
Recommended flow		18 fps (5.5 m/s)
Recommended shear stress		8 lbs./sq. ft (383 N/sq. m)
“C” factor		0.002

BioD-Mat 90 - Bristle Coir Woven Blanket

The blankets shall be woven from machine spun bristle coir twines with a unit weight of 980 g/m². Coir twines shall be made of bristle coir fiber obtained from freshwater cured coconut husks, which shall be machine spun to a uniform diameter. The blanket shall also conform to the following properties.

Property	Test Method	BioD-Mat 90
Weight	ASTM D 3776	29 oz / sy (980 g/m ²)
Thickness	ASTM D 1777	0.35 in (9 mm)
Dry Tensile Strength	ASTM D 4595	
Machine Direction (warp)		2024 lbs/ft (29.6 kN/m)
Cross Direction (weft)		1160 lbs/ft (17.0 kN/m)
Wet Tensile Strength	ASTM D 4595	
Machine Direction (warp)		1776 lbs/ft (25.9 kN/m)
Cross Direction (weft)		936 lbs/ft (13.6 kN/m)
Open area	Calculated	38%
Recommended slope		>1:1
Recommended flow		16 fps (4.9 m/s)
Recommended shear stress		5 lbs./sq. ft (240 N/sq. m)
“C” factor		0.002

BioD-Mat 70 - Bristle Coir Woven Blanket

The blankets shall be woven from machine spun bristle coir twines with a unit weight of 780 g/m². Coir twines shall be made of bristle coir fiber obtained from freshwater cured coconut husks, which shall be machine spun to a uniform diameter. The blanket shall also conform to the following properties.

Property	Test Method	BioD-Mat 70
Weight	ASTM D 3776	23 oz/sy (780 g/m ²)
Thickness	ASTM D 1777	0.35 inches (9 mm)
Dry Tensile Strength	ASTM D 4595	
Machine Direction (warp)		1740 lbs/ft (25.4 kN/m)
Cross Direction (weft)		1176 lbs/ft (17.2 kN/m)
Wet Tensile Strength	ASTM D 4595	
Machine Direction (warp)		1488 lbs/ft (21.7 kN/m)
Cross Direction (weft)		1032 lbs/ft (15.0 kN/m)
% Open area	Calculated	48
Recommended slope		>1:1
Recommended flow		12 fps (3.7 m/s)
Recommended shear stress		4.5 lbs./sq. ft (215 N/sq. m)
“C” factor		0.002

BioD-Mat 60 - Bristle Coir Woven Blanket

The blankets shall be woven from coir twines with a unit weight of 600 g/m² . Coir twines shall be made of bristle coir obtained from freshwater cured coconut husks, which shall be machine spun to a uniform diameter. The blanket shall also conform to the following properties.

Property	Test Method	BioD-Mat 60
Weight	ASTM D 3776	17.8 oz/sy (600 g/m ²)
Thickness	ASTM D 1777	0.35 inches (9 mm)
Dry Tensile Strength	ASTM D 4595	
Machine Direction (warp)		1130 lbs/ft (16.6 kN/m)
Cross Direction (weft)		1040 lbs/ft (15.2 kN/m)
Wet Tensile Strength	ASTM D 4595	
Machine Direction (warp)		910 lbs/ft (13.3 kN/m)
Cross Direction (weft)		870 lbs/ft (12.7 kN/m)
Open area	Calculated	56%
Recommended slope		>1.5:1
Recommended flow		10 fps (3.1 m/s)
Recommended shear stress		4 lbs/sq. ft (190 N/sq. m)
“C” factor		0.0025

BioD-Mat 40 - Bristle Coir Woven Blanket

The blankets shall be woven from coir twines with a unit weight of 460 g/m² . Coir twines shall be made of bristle coir obtained from freshwater cured coconut husks, which shall be machine spun to a uniform diameter. The blanket shall also conform to the following properties.

Property	Test Method	BioD-Mat 40
Weight	ASTM D 3776	13.6 (460) oz/sy (g/m ²)
Thickness	ASTM D 1777	0.35 (9) inches (mm)
Dry Tensile Strength	ASTM D 4595	
Machine Direction (warp)		780 lbs/ft (11.4 kN/m)
Cross Direction (weft)		744 lbs/ft (10.9 kN/m)
Wet Tensile Strength	ASTM D 4595	
Machine Direction (warp)		648 lbs/ft (9.4 kN/m)
Cross Direction (weft)		672 lbs/ft (9.8 kN/m)
Open area	Calculated	65%
Recommended slope		2:1
Recommended flow		8 fps (2.4 m/s)
Recommended shear stress		3 lbs/sq. ft (145 N/sq. m)
“C” factor		0.003