VMAX^3 C350

Product Specification

VMAX 350 Turf reinforcement mat provides instant protection at high flows, promoting vegetation growth and long-term stability. Reinforced vegetation is proven to at least double the performance of vegetation alone, once fully vegetated, our TRMs can achieve impressive velocities of up to 6.0m/s, making them the perfect choice for overtopping spillways, high flow drainage channels and flood embankments.

www.salixrw.com

Salix

VMax^3 C350

For erosion protection and habitat creation

Product Description

The composite turf reinforcement mat (C-TRM) shall be a machine-produced mat of 100% coconut fibre matrix incorporated into permanent three-dimensional turf reinforcement matting. The matrix shall be evenly distributed across the entire width of the matting and stitch boded between super heavy-duty UV stabilized nettings with 1.27 x 1.27 cm openings, an ultra-heavy UV stabilized, dramatically corrugated (crimoed) intermediate netting with 1.27 x 1.27 cm openings and covered by a super heavy-duty UV stabilized netting with 1.27 x 1.27 cm openings. The middle corrugated netting shall for prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 3.81 cm centres with UV stabilized polypropylene thread to form permanent three-dimensional turn reinforcement matting.

Material Content		
Matrix	100% Coconut Fibre	0.27 kg/m^2
Netting	Top and Bottom, UV stabilized Polypropylene Middle, Corrugated UV stabilized Polypropylene	3.91 kg/100m^2 11.7 kg/100m^2
Thread	Polypropylene, UV stable	

Standard Roll Sizes	
Width	2.0 m
Length	20.0 m
Weight ± 10%	23 kg
Thread	40 m^2

VMax^3 C350

For erosion protection and habitat creation

Bench Scale Testing (NTPEP)		
Test Method	Parameters	Results
ASTM D7101	50 mm/hr-30 min 100mm /hr-30 min 150mm /hr-30 min	SLR** = 11.84 SLR** = 19.54 SLR** = 32.26
ASTM D7207	Shear at 12.7 mm soil loss	326 Pa
ASTM D7322	Top Soil, Fescue, 21 day incubation	380% improvement of biomass
* Bench scale tests should not be used for design purposes ** Soil Loss Ration = Soil Loss Bare Soil/ Soil Loss with RECP		

Maximum Permissible Shear Stress		
	Short Duration	Long Duration
Phase 1 Unvegetated	153 Pa	144 Pa
Phase 2 Partially Veg.	480 Pa	480 Pa
Phase 3 Fully Veg.	576 Pa	480 Pa
Unvegetated Velocity	3.2 m/s	
Vegetated Velocity	6.0 m/s	

NTPEP ASTM D6460 Large Scale Channel	
Unvegetated Shear Stress	153 Pa
Unvegetated	3.45 m/s

Roughness Coefficients – Unvegetated	
Flow Depth	Manning's n
≤ 0.15 m	0.041
0.15 – 0.60 m	0.040-0.013
≥ 0.60 m	0.012

Index Property	Test Method	Typical
Thickness	ASTM D6525	18.54 mm
Resiliency	ASTM 6524	90%
Density	ASTM D792	0.917 g/cm^3
Mass/ Unit Area	ASTM 6566	624 g/m^2
UV Stability	ASTM D4355 /1000 hr	86%
Porosity	ECTC Guidelines	99%
Stiffness	ASTM D1388	275990 mg-cm
Light Penetration	ASTM D6567	7.2%
Tensile Strength – MD	ASTM D6818	8.70 kN/m
Elongation – MD	ASTM D6818	45.3%
Tensile Strength – TD	ASTM D6818	10.20 kN/m
Elongation – TD	ASTM D6818	19.5%

Slope Design Data – C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2.1	≥ 2:1
≤ 6 m	0.0005	0.015	0.043
6-15 m	0.018	0.031	0.050
≥ 15 m	0.035	0.047	0.057