

## Section 7: Erosion and Sediment Control Product Specifications

<b>BONDED FIBER MATRIX</b> SDDOT SPECIFICATIONS FOR APPROVED PRODUCTS LIST	
<b>Material Composition and Properties</b> manufacturer's data	Bonded fiber matrix shall consist of a continuous layer of elongated fiber strands held together by a water resistant bonding agent. The bonded fiber matrix shall be uniformly applied and shall have no gaps between the product and the seeded soil. The product shall be 100% biodegradable and composed of 90% wood fiber, 9% natural binder, and 1% organic and mineral activators (all by weight). The treatment shall be installed with hydraulic seeding equipment.

<b>FIBER MULCH</b>	
PROPERTY AND TEST METHOD	SDDOT SPECIFICATIONS FOR APPROVED PRODUCTS LIST
<b>Fiber Composition</b> manufacturer's data	100% wood fiber
<b>Tackifier</b> manufacturer's data	3% by weight and 100% organic

<b>EROSION CONTROL WATTLES</b>	
PROPERTY AND TEST METHOD	SDDOT SPECIFICATIONS FOR APPROVED PRODUCTS LIST
<b>Material Composition and Properties</b> manufacturer's data	Erosion control wattles are tubes of 100% weed free straw, excelsior, or coconut husk encased in ultraviolet (UV) degradable or biodegradable netting.

<b>SILT FENCE FABRIC</b> SDDOT SPECIFICATIONS FOR APPROVED PRODUCTS LIST		
PROPERTY AND TEST METHOD	LOW FLOW	HIGH FLOW
<b>Water Flow Rate</b> ASTM D 4491	20-70 g/min/ft <sup>2</sup>	71-145 g/min/ft <sup>2</sup>
<b>Minimum Ultra-Violet Stability</b> ASTM D 4355 <sup>1</sup>	70%	70%

<sup>1</sup> strength retention at 500 hours

<b>EROSION CONTROL BLANKET SDDOT SPECIFICATIONS FOR APPROVED PRODUCTS LIST</b>				
<b>PROPERTY AND TEST METHOD</b>	<b>TYPE 1</b>	<b>TYPE 2</b>	<b>TYPE 3</b>	<b>TYPE 4</b>
<b>Material Composition</b> manufacturer's data	Processed degradable 100% straw or 100% excelsior bound with regular to rapidly degrading, synthetic or natural fiber netting to form a continuous matrix.		Processed slow degrading 100% coconut fiber, excelsior, or a combo of coconut fiber and straw, bound between two slow degrading synthetic or natural fiber nettings.	
	single, double, or no net	double net only		
<b>Functional Longevity</b> manufacturer's data	typical 3 to 6 month	typical 6 to 12 month	typical 12 to 24 month	typical 24 to 36 month
<b>Minimum Mass Per Unit Area</b> ASTM D 6475	7 oz/yd <sup>2</sup>	7 oz/yd <sup>2</sup>	8 oz/yd <sup>2</sup>	8 oz/yd <sup>2</sup>
<b>Minimum Thickness</b> ASTM D 6525	0.25 in	0.25 in	0.25 in	0.25 in
<b>Minimum Tensile Strength</b> ASTM D 5035 <sup>1</sup>	50 lbs/ft	75 lbs/ft	100 lbs/ft	125 lbs/ft
<b>Maximum Shear Stress</b> ASTM D 6460 <sup>2</sup>	1.5 lbs/ft <sup>2</sup>	1.75 lbs/ft <sup>2</sup>	2 lbs/ft <sup>2</sup>	2.25 lbs/ft <sup>2</sup>
<b>C Factor</b> ASTM D 6459 <sup>3</sup>	<0.20 @ 3:1 (H:V)	<0.20 @ 2:1 (H:V)	<0.25 @ 1:1 (H:V)	<0.25 @ 1:1 (H:V)

<sup>1</sup> minimum average roll values, Machine Direction (MD)

<sup>2</sup> (channel applications) minimum shear stress the blanket sustains without damage and without any more than 0.5" soil loss during a 30 minute flow event

<sup>3</sup> (slope applications) "C" factor calculated as a ratio of soil loss from a protected slope to ratio of soil loss from an unprotected slope

<b>LANDSCAPE/WEED BARRIER FABRIC</b>		<b>SDDOT SPECIFICATIONS FOR APPROVED PRODUCTS LIST</b>
<b>PROPERTY AND TEST METHOD</b>		
<b>Material Composition and Properties</b> manufacturer's data		The geotextile fabric shall be a woven, non-woven, or combination woven/non-woven material that allows water and air permeability, but prevents the growth of weeds and grasses. The geotextile fabric shall have been designed and manufactured specifically for use as a landscape fabric/weed barrier fabric.
<b>Minimum Mass Per Unit Area</b> ASTM D 5261		3 oz/yd <sup>2</sup>
<b>Minimum Water Flow Rate</b> ASTM D 4491		12 g/min/ft <sup>2</sup>
<b>Minimum Ultra-Violet Stability</b> ASTM D 4355 (strength retention at 500 hours)		70%

<b>TURF REINFORCEMENT MAT SDDOT SPECIFICATIONS FOR APPROVED PRODUCTS LIST</b>			
<b>PROPERTY AND TEST METHOD</b>	<b>TYPE 1</b>	<b>TYPE 2</b>	<b>TYPE 3</b>
<b>Material Composition</b> manufacturer's data	100% synthetic, non-degradable materials		
<b>Minimum Mass Per Unit Area</b> ASTM D 6566	8 oz/yd <sup>2</sup>	10 oz/yd <sup>2</sup>	12 oz/yd <sup>2</sup>
<b>Minimum Thickness</b> ASTM D 6525	0.25 in	0.25 in	0.25 in
<b>Minimum Tensile Strength</b> ASTM D 6818	125 lbs/ft	150 lbs/ft	175 lbs/ft
<b>Maximum Shear Stress</b> ASTM D 6460 (channel applications)	4 lbs/ft <sup>2</sup>	6 lbs/ft <sup>2</sup>	8 lbs/ft <sup>2</sup>
<b>Minimum Ultra-Violet Stability</b> ASTM D 4355 (strength retention at 500 hours)	80%	80%	80%
<b>Minimum Light Penetration</b> ASTM D 6567 (% passing)	20%	15%	15%