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"Blanketing Nature With Nature"

Effective: 2/10/10

RE: Certificate of Conformance: *Excel S-2 All Natural*TM

To Whom it May Concern:

This letter is to certify that Western Excelsior manufactures the Rolled Erosion Control Product (RECP) marketed as EXCEL S-2 All Natural. Each blanket is subjected to Western Excelsior's Quality Assurance Program and is manufactured to the specifications listed in document number WE_EXCEL_S2AN_SPEC. Further, Western Excelsior utilizes industry standardized test procedures to develop performance references for Excel S-2 All Natural. Document number WE_EXCEL_S2AN_PERF presents the industry standardized testing and results. Installation instructions are provided in document numbers WE_EXCEL_S2AN_SII and WE_EXCEL_S2AN_CII for hill slope and channel installations, respectively. A copy of document number WE_EXCEL_S2AN_SPEC is attached; all other documentation may be obtained by calling Western Excelsior Technical Services at 1-800-967-4009, at www.westernexcelsior.com or by email at wexcotech@westernexcelsior.com.

Regards,

A handwritten signature in black ink, appearing to read "Chad M. Lipscomb".

Chad M. Lipscomb, PE, CPESC
Director, Technical Services
Western Excelsior Corporation



Material Properties and Dimensions



Description

Western Excelsior manufactures a full line of Rolled Erosion Control Products (RECPs). Excel S-2 All Natural Temporary Erosion Control Blanket is composed of a 100% High Altitude Rocky Mountain Aspen Excelsior matrix mechanically (stitch) bonded on two inch centers between two bio-degradable, jute/scrim nets. Excel excelsior matrix consists of curled, machine produced fibers with greater than eighty percent longer than six inches. Stitching is comprised of cotton thread. Excel S-2 All Natural blanket is available in natural color or dyed green and is recommended for use in channels or slopes requiring erosion protection for a period up to twenty-four months. Actual field longevity is dependent on soil and climatic conditions.

Specifications

Each roll of EXCEL S-2 All Natural is manufactured under Western Excelsior's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness. Verifiable values are provided in Table 1 and product characteristics are provided in Tables 2 and 3. Values provided in Tables 1, 2 and 3 represent expected values at the time of manufacture. Installation instructions and performance data are available from Western Excelsior's Technical Support Division.

Tested Property	Test Method	Value	Units
Tensile Strength	ASTM D6818	16.0 (MD) 11.0 (TD)	lb/in
Elongation	ASTM D6818	20.0 (MD) 20.0 (TD)	%
Mass per Unit Area	ASTM D6475	11.5	oz/yd ²
Thickness	ASTM D6525	12.0	mm
Light Penetration	ASTM D6567	28	% open
Water Absorption	ASTM D1117	275	%

Top Net	Biodegradable Jute/Scrim (Leno Weave)
Bottom Net	Biodegradable Jute/Scrim (Leno Weave)
Top Net Opening	0.5 in x 1.0 in (Nominal)
Bottom Net Opening	0.5 in x 1.0 in (Nominal)

Style	Narrow	Wide
Roll Width	8 ft	N/A
Roll Length	112.5 ft	N/A
Coverage	100 yd ²	N/A
Roll Weight	81 lbs	N/A

Document # WE_EXCEL_S2AN_SPEC. This document has been developed to provide the characteristic properties of the product described. For questions, to request performance data or installation recommendations, contact Western Excelsior at 800-967-4009 or wexcotech@westernexcelsior.com. Updated 02/10.