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"Blanketing Nature With Nature"

Effective: 09/16/2011

RE: Certificate of Conformance: Excel R-1 All Natural™

To Whom it May Concern:

This letter is to certify that Western Excelsior manufactures the Rolled Erosion Control Product (RECP) marketed as EXCEL R-1 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_R1AN_SPEC. Further, Western Excelsior utilizes industry standardized test procedures to develop performance references for Excel R-1. Document number WE_EXCEL_R1AN_PERF presents the industry standardized testing and results. Installation instructions are provided in document numbers WE_EXCEL_R1AN_SII and WE_EXCEL_R1AN_CII for hillslope and channel installations, respectively. A copy of document number WE_EXCEL_R1AN_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". The signature is written in a cursive, flowing style.

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

MATERIAL PROPERTIES AND DIMENSIONS



EXCEL R-1 ALL NATURAL™



Specifications

Western Excelsior manufactures a full line of Rolled Erosion Control Products (RECPs). Excel R-1 All Natural temporary Erosion Control Blanket is composed of a 100% machine produced High Altitude Rocky Mountain Aspen Excelsior matrix mechanically (stitch) bonded on two inch centers to a single biodegradable, jute/scrim net. The excelsior matrix consists of curled, machine produced fibers with greater than eighty percent longer than six inches. Excel R-1 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 fifteen months and is 100% biodegradable. Actual field longevity is dependent on soil and climatic conditions.

Each roll of EXCEL R-1 All Natural is manufactured under Western Excelsior's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness. Verified index properties are provided in Table 1 and product characteristics are provided in Table 2.

Table 1- Specified Expected Values

Tested Property	Test Method	Value
Tensile Strength (MD) x (TD)	ASTM D6818	9.0 lb/in (1.6 kN/m) x 6.3 lb/in (1.1 kN/m)
Elongation (MD) x (TD)	ASTM D6818	20 % x 20 %
Mass Per Unit Area	ASTM D6475	9.1 oz/yd ² (308 g/m ²)
Thickness	ASTM D6525	0.33 in (8 mm)
Light Penetration	ASTM D6567	37 % open
Water Absorption	ASTM D1117	275 %

Table 2 - Netting

Top Net Type	Biodegradable, Jute Scrim Leno Weave
Bottom Net Type	N/A
Top Net Opening Dimensions	0.5 in (13 mm) x 1.0 in (25 mm)
Bottom Net Opening Dimensions	N/A

Excel R-1 All Natural is available in multiple roll sizes ranging in width from 8.0 ft to 16.0 ft. and 90 ft to 600 ft in length. Standard roll sizes are 80 square yards, measuring 4.0 ft wide by 180.0 ft long or 8.0 ft wide by 90 ft long. Custom roll sizes are available upon request.