



Chad Lipscomb, PE, CPESC
Director, Technical Services
Western Excelsior Corporation
PO Box 270308
Fort Collins, CO 80527-0308
970-631-8366 office
chad@westernexcelsior.com

"Blanketing Nature With Nature"

Effective: 2/10/10

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_L1AN_SII and WE_EXCEL_R1AN_CII for hill slope 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".

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 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/skrim 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. Actual field longevity is dependent on soil and climatic conditions.

Specifications

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 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	9.0 (MD) 6.3 (TD)	lb/in
Elongation	ASTM D6818	20.0 (MD) 20.0 (TD)	%
Mass per Unit Area	ASTM D6475	9.1	oz/yd ²
Thickness	ASTM D6525	8.4	mm
Light Penetration	ASTM D6567	37	% open
Water Absorption	ASTM D1117	275	%

Top Net	Synthetic Photo-degradable
Bottom Net	N/A
Top Net Opening	0.5 in x 1.0 in (Nominal)
Bottom Net Opening	N/A

Style	Narrow	Wide
Roll Width	4 ft	8 ft
Roll Length	180 ft	90 ft
Coverage	80 yd ²	80 yd ²
Roll Weight	51 lbs	51 lbs

Document # WE_EXCEL_R1AN_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.