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"Blanketing Nature With Nature"

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Effective: 09/16/2011

RE: Certificate of Conformance: Excel R-1™

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. Excel R-1 has also been marketed as XCEL R-1 and XCEL Regular. Each blanket is subjected to Western Excelsior's Quality Assurance Program and is manufactured to the specifications listed in document number WE\_EXCEL\_R1\_SPEC. Further, Western Excelsior utilizes industry standardized test procedures to develop performance references for Excel R-1. Document number WE\_EXCEL\_R1\_PERF presents the industry standardized testing and results. Installation instructions are provided in document numbers WE\_EXCEL\_R1\_SII and WE\_EXCEL\_R1\_CII for hillslope and channel installations, respectively. A copy of document number WE\_EXCEL\_R1\_SPEC is attached; all other documentation may be obtained by calling Western Excelsior Technical Services at 1-800-967-4009, at [www.westernexcelsior.com](http://www.westernexcelsior.com) or by email at [wexcotech@westernexcelsior.com](mailto:wexcotech@westernexcelsior.com).

Regards,

A handwritten signature in black ink, appearing to read "Chad M. Lipscomb". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

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

# MATERIAL PROPERTIES AND DIMENSIONS



**EXCEL R-1™**



## Specifications

Western Excelsior manufactures a full line of Rolled Erosion Control Products (RECPs). Excel R-1 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 photodegradable, synthetic net. The excelsior matrix consists of curled, machine produced fibers with greater than eighty percent longer than six inches. Excel R-1 blanket is available in natural color or dyed green and is recommended for use in channels or slopes requiring erosion protection for a period of up to fifteen months. Actual field longevity is dependent on soil and climatic conditions.

Each roll of EXCEL R-1 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 netting characteristics are provided in Table 2.

Table 1- Specified Expected Values

Tested Property	Test Method	Value
Tensile Strength MD x TD	ASTM D6818	5.0 lb/in (0.9 kN/m) x 4.0 lb/in (0.7 kN/m)
Elongation MD x TD	ASTM D6818	12 % x 10 %
Mass Per Unit Area	ASTM D6475	9.1 oz/yd <sup>2</sup> (308 g/m <sup>2</sup> )
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	Synthetic, Photodegradable
Bottom Net Type	N/A
Top Net Opening Dimensions	0.8 in (20 mm) x 1.0 in (25 mm)
Bottom Net Opening Dimensions	N/A

Excel R-1 is available in multiple roll sizes ranging in width from 4.0 ft to 16.0 ft. and 45 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.