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"Blanketing Nature With Nature"

Effective: 09/16/2011

RE: Certificate of Conformance: Excel CC-4™

To Whom it May Concern:

This letter is to certify that Western Excelsior manufactures the Rolled Erosion Control Product (RECP) marketed as EXCEL CC-4. Each blanket is subjected to Western Excelsior's Quality Assurance Program and is manufactured to the specifications listed in document number WE_EXCEL_CC4_SPEC. Further, Western Excelsior utilizes industry standardized test procedures to develop performance references for Excel CC-4. Document number WE_EXCEL_CC4_PERF presents the industry standardized testing and results. Installation instructions are provided in document numbers WE_EXCEL_CC4_SII and WE_EXCEL_CC4_CII for hillslope and channel installations, respectively. A copy of document number WE_EXCEL_CC4_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



EXCEL CC-4™



Specifications

Western Excelsior manufactures a full line of Rolled Erosion Control Products (RECPs). Excel CC-4 consists of a machine produced, clean coconut fiber matrix, manufactured for consistent coverage and thickness. The coconut matrix is confined by a UV stabilized photodegradable, synthetic net on top and bottom, mechanically (stitch) bound on two inch centers. Excel CC-4 is intended for slope or channel erosion control applications requiring up to thirty-six months of functional longevity. Actual field longevity is dependent on soil and climatic conditions.

Each roll of EXCEL CC-4 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	18.4 lb/in (3.2 kN/m) x 12.7 lb/in (2.2 kN/m)
Elongation (MD) x (TD)	ASTM D6818	25 % x 25 %
Mass Per Unit Area	ASTM D6475	9.5 oz/yd ² (322 g/m ²)
Thickness	ASTM D6525	0.26 in (7 mm)
Light Penetration	ASTM D6567	15 % open
Water Absorption	ASTM D1117	250 %

Table 2 - Netting

Top Net Type	Synthetic, UV Stable
Bottom Net Type	Synthetic, UV Stable
Top Net Opening Dimensions	0.7 in (17 mm) x 0.7 in (17 mm)
Bottom Net Opening Dimensions	0.7 in (17 mm) x 0.7 in (17 mm)

Excel CC-4 is available in multiple roll sizes ranging in width from 8.0 ft to 16.0 ft. and 112.5 ft to 600 ft in length. Standard roll sizes are 100 square yards, measuring 8.0 ft wide by 112.5 ft long. Custom roll sizes are available upon request.

Document # WE_EXCEL_CC4_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 09/16/2011.