



Product Evaluation Data and Test Results



Test Methods

A variety of test methods are utilized to determine performance and conformance values for Rolled Erosion Control Products (RECPs). Information within this document is presented to provide conformance values and recommended design values. Test results obtained for the Excel R-1 Rapid Go Temporary Erosion Control Blanket (ECB) and general design values are presented in Tables 1-4. For specific information detailing testing protocols, results and application of design values, refer to document number WE_EXCEL_PERF_GEN.

Test Results

Table 1 - Bench Scale Testing (NTPEP)

Test Method	Test Condition	Results	Units
ECTC Test Method 2 - Rainfall/Rainsplash Resistance	2 in. per hour	10.43	Soil Loss Ratio
	4 in. per hour	10.77	
	6 in. per hour	11.12	
ECTC Test Method 3 - Shear Resistance	2.65	0.5	Soil Loss (in.)
ECTC Test Method 4 - Germination	Top Soil, Fescue, 21 day incubation	549	% Improvement

Table 2 - Texas Transportation Institute (TTI)

Class	Test Condition	Result
A	< 3H : 1V Clay Slope Testing	N/A
B	< 3H : 1V Sand Slope Testing	N/A
C	> 3H : 1V Clay Slope Testing	N/A
D	> 3H : 1V Sand Slope Testing	N/A
E	2.0 lb/ft ² Partially Vegetated Channel Testing	N/A
F	4.0 lb/ft ² Partially Vegetated Channel Testing	N/A
G	6.0 lb/ft ² Partially Vegetated Channel Testing	N/A
H	8.0 lb/ft ² Partially Vegetated Channel Testing	N/A
I	10.0 lb/ft ² Partially Vegetated Channel Testing	N/A
J	12.0 lb/ft ² Partially Vegetated Channel Testing	N/A

Document # WE_EXCEL_R1AN_PERF. This document has been developed to provide information regarding the bench scale and/or performance testing conducted on the Excel R-1 All Natural ECB. For questions or installation recommendations, contact Western Excelsior Technical Services Division at 800-967-4009 or wexcotech@westernexcelsior.com. Updated 02/10.

Recommended Design Values

Table 3 - Unvegetated Design Values

Maximum Permissible Velocity*	Soil Loss
5.5 ft/s	0.5 inches
Maximum Permissible Shear Stress*	Soil Loss
1.6 lb/ft ²	0.5 inches
Resistance to Flow*	
HEC 15 Shear Relationship	Manning's n
0.4 lb/ft ² (Tau _{lower})	0.062
0.8 lb/ft ² (Tau _{mid})	0.038
1.6 lb/ft ² (Tau _{upper})	0.035
RUSLE Cover Factor*	Slope Gradient*
0.08	2 H : 1V

Table 4 - Vegetated Design Values

Maximum Permissible Shear Stress (lb/ft ²)	N/A
Maximum Permissible Velocity (ft/s)	N/A
C _{Fveg} /C _{FTRM} (Test Conditions)	N/A

*Recommended Design Values are based on results of standardized industry full-scale testing and may not be applicable for all field conditions. Values provided herein are intended for use with the state of the practice design procedures. For most accurate computation of field performance, consult Excel Erosion Design (EED) at www.westernexcelsior.com.