



Product Evaluation and Test Results



EXCEL CS-3™

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 CS-3 Extended Term 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	2 in. per hour	12.52	Soil Loss Ratio
	4 in. per hour	15.58	
	6 in. per hour	19.38	
ECTC Test Method 3 - Shear Resistance	2.60 psf	0.5	Soil Loss (in.)
ECTC Test Method 4 - Germination	Top Soil, Fescue, 21 day Incubation	556	% Improvement

Table 2 - Texas Transportation Institute (TTI)

Rainfall Testing				Channelized Testing		
Class	Slope Gradient	Soil Type	Result	Class	90 Day Partially Vegetated Shear Stress Threshold	Result
A	< 3H : 1V	Clay	N/A	E	2.0 lb/ft ²	N/A
B	< 3H : 1V	Sand	Approved	F	4.0 lb/ft ²	N/A
C	> 3H : 1V	Clay	N/A	G	6.0 lb/ft ²	N/A
D	> 3H : 1V	Sand	Approved	H	8.0 lb/ft ²	N/A
				I	10.0 lb/ft ²	N/A
				J	12.0 lb/ft ²	N/A

Recommended Design Values

Table 3 - Unvegetated Design Values

Maximum Permissible Velocity*	Soil Loss
6.0 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})	0.045
0.8 lb/ft ² (Tau _{mid})	0.036
1.6 lb/ft ² (Tau _{upper})	0.031
RUSLE Cover Factor*	Slope Gradient*
0.15	3 H : 1 V

Table 4 - Vegetated Design Values

Maximum Permissible Velocity*
N/A
Maximum Permissible Shear Stress*
N/A

*Recommended Design Values provided herein are based on results of standardized industry 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.

Document # WE_EXCEL_CS3_PERF. This document has been developed to provide information regarding the bench scale and/or performance testing conducted on the Excel CS-3 ECB. For questions or installation recommendations, contact Western Excelsior Technical Services Division at 800-967-4009 or wexcotech@westnexcelsior.com. Updated 02/09.