

CONCRETE CLOTH™

Geosynthetic Cementitious Composite Mat (GCCM)



WATER/WASTEWATER



OIL/GAS/INDUSTRIAL

DATA SHEET

CONCRETE CLOTH™ (CC) PROPERTIES

UNCURED (AS DELIVERED)

PHYSICAL PROPERTIES

	TEST METHOD	UNIT	TYPICAL VALUES		
			CC5™	CC8™	CC13™
Thickness	ASTM D5199	in (mm)	0.2 (5)	0.3 (8)	0.5 (13)
Batch Roll Sizes		ft	3.375 x 30	3.625 x 20	N/A
Area of Batch Roll		ft ²	101.25	72.5	N/A
Bulk Roll Sizes		ft	3.375 x 656	3.625 x 376	3.625 x 240
Area of Bulk Roll		ft ²	2214	1363	870
Mass per Unit Area	ASTM D5993 Proc A	lb/ft ²	1.4	2.2	3.7
Tensile Strength (Loading Rate 12 in/min)	ASTM D6768	lb/in	45		

CURING PROPERTIES

Set Time	Initial	ASTM C807	min	120
	Final			140
Will achieve ~70% of full strength in 24 hrs. Working time 1-2 hrs.				

CURED

(HYDRATED BY FULL IMMERSION IN ACCORDANCE WITH ASTM D8303. WATER:GCCM RATIO OF 0.33)

MECHANICAL PERFORMANCE

	TEST METHOD	UNIT	TYPICAL VALUES		
			CC5™	CC8™	CC13™
Compressive Strength (Cement Only) 3-day	ASTM C109	psi	4000		
Flexural Strength (24 hrs Cure)	Initial	ASTM D8058	psi	>500	
	Final			>580	
Initial Flexural Breaking Load	ASTM D8058	lbf/in	N/A	8.5	21
Tensile Strength (28-day Cure)	Initial	ASTM D4885	lbs/in	20	40
	Final			60	110
Pyramid Puncture (28-day Cure)	ASTM D5494 Type B	lbf	900	1500	280
Permability*	–	m/s		2 x 10 ⁻¹¹	

* Permeability of joints will vary dependent on the jointing method.

ENVIRONMENTAL DURABILITY

Freeze Thaw	200 Cycles - 28-day Cure	ASTM C1185 & D8058	%	>95%
Weathering Resistance		BS EN 12467	-	Passed
Chemical Resistance		BS EN 14414	-	Passed
Root Resistance		DD CEN/TS 14416	-	Passed
Fire Rating		MSHA ASTP-5011	-	Vertical and Horizontal Certification
Impact Resistance		ASTM G13	-	Passed

HYDRAULIC PERFORMANCE

Abrasion Resistance (Maximum Value)		ASTM C1353	mm/1000 Cycles	0.30	0.25
Manning's Roughness Coefficient		ASTM D6460	–	0.011	
Permissible Shear**		ASTM D6460	lb/ft ²	Contact Your GeoTree Representative	
Permissible Velocity**		ASTM D6460	ft/sec	Contact Your GeoTree Representative	

** Product exceeded large scale testing capabilities and was not tested to failure. To achieve permissible values the material must be properly anchored with system designed to meet or exceed these published values.



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Before using any GeoTree product, the user must review the most recent version of the product's technical data sheet, material safety data sheet and other applicable documents, available at www.geotreesolutions.com or by calling +1.855.655.6750.

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