

CCX-U™ GCCM

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What is it?

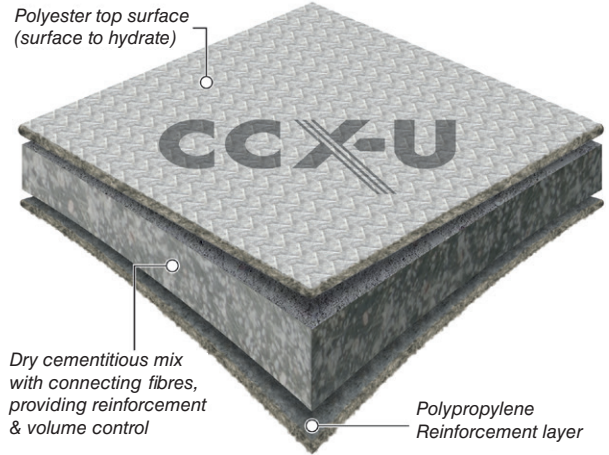
CCX-UTILITY™ (CCX-U™) is part of a revolutionary class of construction materials called Geosynthetic Cementitious Composite Mats (GCCMs).

It is a flexible, concrete filled geosynthetic, that hardens on hydration to form a thin, durable, water proof concrete layer. Essentially, it's *Concrete on a Roll™*.

CCX-U™ allows concrete installation without the need for plant or mixing equipment while also reducing vehicle movements and contractor burden. Simply unroll and *Just add Water*.

CCX-U™ consists of a top layer of UV stabilised polyester geotextile that is interconnected to a bottom layer of polypropylene geotextile to encapsulate a specially formulated dry concrete mix. The unique manufacturing process connects the geotextile layers by stitching them together which, when combined with the innovative method of inserting the concrete mix, allows the product to reach high levels of performance.

CCX-U™ can be hydrated either by spraying or by being fully immersed in water.



CCX-U™ Properties

Pre-set (Uncured)	Test Method	Unit	Typical Values
			CCX-U™
ASTM D8364 'Standard Specification for GCCM Materials' Classification			
GCCM/B Classification	ASTM D8364	Type	II
Physical Properties			
Total Thickness	BS EN 1849-2	mm	10
Roll Size - W x L*		m	1.95 x 50
Mass per Unit Area	BS EN 1849-2	kg/m ²	14.5 - 15.5
Density	BS EN 1849-2	kg/m ³	1500 - 1600
Density Increase on Curing		% Increase	20-25
Other Properties			
Working Time from Hydration		Minutes	<30
Post-set (Cured) - at 28 Days from Hydration Unless Specified (Hydrated by full immersion in accordance with ASTM D8030)			
	Test Method	Unit	Typical Values CCX-U™
Mechanical Performance			
Compressive Strength of Cementitious Mix (water/cementitious materials ratio to ASTM D8329)	ASTM D8329	MPa	>70
Flexural Strength - at 24 Hours from Hydration (MD**)			
- Initial Breaking Load	ASTM D8058	N/m	>2500
- Initial Flexural Strength	ASTM D8058	MPa	>4.0
- Final Flexural Strength	ASTM D8058	MPa	>6
Environmental Durability			
Freeze - Thaw Resistance - retained Initial Flexural Strength after 100 cycles (MD**)	BS EN 12467	%	120
Weathering (UV) Resistance - retained Initial Flexural Strength (MD**)	BS EN 12224	%	90
Root Resistance	DD CEN/TS 14416	-	Passed
Hydraulic Performance			
Abrasion Resistance - (cementitious barrier depth of wear)	ASTM C1353	mm/1000 Cycles	<0.2

*CCX™ Rolls are supplied by area so the listed length and width dimensions are typical values and tolerances are typically +5%/2.5%. ** Machine direction.

Information is provided based on current test data and may be subject to change as new information becomes available. The versatile nature of CCX™ means that all application conditions cannot be anticipated. Concrete Canvas Ltd makes no warranties and assumes no liability in connection with this information. Project specific testing may be required to determine the suitability for CCX™ material use in a particular application.

