

## Concrete Canvas® (CC) properties

2111.01.US

Pre-set (uncured)	Test Method	Unit	Typical Values		
			CC5™	CC8™	CC13™
<b>ASTM D8364 'Standard Specification for GCCM Materials' Classification</b>					
<b>GCCM Classification</b>	ASTM D8364	Type	I	II	III
<b>Dimensions</b>					
<b>Thickness</b>	ASTM D5199	in (mm)	0.2 (5)	0.3 (8)	0.5 (13)
<b>Batched Roll Sizes</b>		ft	3.28 x 33	3.61 x 15	N/A
<b>Area of CC per Batched Roll</b>		ft²	108	54	N/A
<b>Bulk Roll Sizes</b>		ft	3.28 x 656	3.61 x 373	3.61 x 239
<b>Area of CC per Bulk Roll</b>		ft²	2153	1346	861
<b>Physical Properties</b>					
<b>Mass per Unit Area</b>	ASTM D5993 Proc A	lbs/ft²	1.43	2.46	3.89
<b>Density</b>	ASTM D5933/D5199	lbs/ft³	89-96		
<b>Density Increase on Curing</b>		% Increase	30-35		
<b>Peel Strength</b> (strength of internal linking fibres)	BS EN ISO 13426-2	lbf/in	22	25	28
<b>Other Properties</b>					
<b>Working Time from Hydration</b> (refer to the CC Hydration Guide)		Hours	1 to 2		
<b>Embodied CO<sub>2</sub> Saving</b> (cradle to gate for CC8™ vs poured concrete)	ISO 14040	% Saving	55		

## Post-set (cured) at 28 days from hydration unless specified

(Hydrated by full immersion in accordance with ASTM D8030)

	Test Method	Unit	Typical Values		
			CC5™	CC8™	CC13™
<b>Mechanical Performance</b>					
<b>Compressive Strength of Cementitious Mix</b> (water/cementitious materials ratio to ASTM D8329)	ASTM D8329	psi	11600		
<b>Flexural Strength</b> - at 24 Hours from Hydration (MD)					
- Initial Flexural Strength	ASTM D8058	psi	>580		
- Initial Breaking Load	ASTM D8058	lbf/in	4.3	10.0	28.6
- Final Flexural Strength	ASTM D8058	psi	>1400	>850	>850
<b>Dynamic Puncture Resistance</b> (depth of perforation)	BS EN ISO 13433	in	0*		
<b>Pyramid Puncture Resistance</b>	BS EN ISO 14574	lbf	900	1550	2800
<b>Differential Ground Movement</b> (strain to PVC failure)		%	>5	>5	>2
<b>Coefficient of Thermal Expansion</b>		α (mm/mk)	0.012-0.015		
<b>Environmental Durability</b> (minimum 120 year expected life)					
<b>Freeze - Thaw Resistance</b> (retained Initial Flexural Strength after 250 cycles)	BS EN 12467	%	95		
<b>Weathering Resistance</b> (refer to CC Weather Resistance)	BS EN 12467	-	Passed		
<b>Chemical Resistance</b> (refer to CC Chemical Resistance)	BS EN 14414	-	Passed		
<b>Root Resistance</b> (refer to CC Root Resistance Testing)	DD CEN/TS 14416	-	Passed		
<b>Reaction to Fire</b> (refer to CC Fire Certification)	BS EN 13501	-	Euroclass B-s1, d0		
<b>Hydraulic Performance</b>					
<b>Abrasion Resistance</b> (cementitious barrier depth of wear)	ASTM C1353	in/1000 Cycles	0.008		
<b>Manning's Roughness Coefficient</b>	ASTM D6460	n	0.011		
<b>Recommended Permissible Velocity</b> (intermediate fixings may be required - contact CCUSA)	ASTM D6460	ft/sec	Application Dependent	<28	>28

\* Probe did not make a full penetration through the product, therefore the depth of penetration is zero.

Occasionally there will be a Beam Fault (fabric imperfection under 100mm wide running across the width) in a Bulk Roll. This fault is unavoidable due to the manufacturing process and the fault will be clearly marked with a white tag, there will be a maximum of (1) one Beam Fault in any Bulk Roll. A joint may need to be made on site where there is a Beam Fault as the material at a fault will not reach the performance specified in this Data Sheet. The maximum un-useable material due to any Beam Fault will be 100mm. There are no beam faults in standard batched rolls. Roll dimension tolerances are typically +5%/±2.5%.

Information is provided based on current test data and may be subject to change as new information becomes available. The versatile nature of Concrete Canvas® 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 Concrete Canvas® material use in a particular application.



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