

Concrete Canvas® (CC) properties

2104.01.EN

Pre-set (Uncured)	Test Method	Unit	Typical Values		
			CC5™	CC8™	CC13™
ASTM D8364 'Standard Specification for GCCM Materials' Classification					
GCCM Classification	ASTM D8364	Type	I	II	III
Dimensions					
Thickness	BS EN 1849-2	mm	5	8	13
Batched Roll Sizes		m	1.0x10	1.1x4.55	N/A
Area of CC per Batched Roll		m ²	10	5	N/A
Bulk Roll Sizes*		m	1.0 x 200	1.1 x 114	1.1 x 73
Area of CC per Bulk Roll		m ²	200	125	80
Physical Properties					
Mass per Unit Area	BS EN 1849-2	kg/m ²	7	12	19
Density	BS EN 1849-2	kg/m ³	1430-1540		
Density Increase on Curing		% Increase	30-35		
Peel Strength - strength of internal linking fibres (MD)	BS EN ISO 13426-2	kN/m	4.0	4.5	5.0
Other Properties					
Working Time from Hydration (refer to the CC Hydration Guide)		Hours	1 to 2		
Embodied CO ₂ Saving (cradle to grave for CC8™ as a % of poured concrete - refer to CC CO ₂ Report)	ISO 14040	% Saving	55		

Post-set (Cured) - at 28 Days from Hydration unless specified

(Hydrated by full immersion in accordance with ASTM D8030)

Post-set (Cured) - at 28 Days from Hydration unless specified	Test Method	Unit	Typical Values		
			CC5™	CC8™	CC13™
Mechanical Performance					
Compressive Strength of Cementitious Mix (water/cementitious materials ratio to ASTM D8329)	ASTM D8329	MPa	80		
Flexural Strength - at 24 Hours from Hydration (MD)					
- Initial Breaking Load	ASTM D8058	N/m	750	1750	5000
- Initial Flexural Strength	ASTM D8058	MPa	>4.0		
- Final Flexural Strength	ASTM D8058	MPa	10	6	6
Dynamic Puncture Resistance (depth of perforation)	BS EN ISO 13433	mm	0**		
Pyramid Puncture Resistance	BS EN ISO 14574	kN	4.0	7.0	12.5
Differential Ground Movement (strain to PVC failure)		%	>5	>5	>2
Coefficient of Thermal Expansion		α (mm/mk)	0.012-0.015		
Environmental Durability (minimum 120 year expected life - see BBA Cert 19/5685)					
Freeze - Thaw Resistance (retained Initial Flexural Strength after 250 cycles)	BS EN 12467	%	95		
Weathering Resistance (refer to CC Weather Resistance)	BS EN 12467	-	Passed		
Chemical Resistance (refer to CC Chemical Resistance)	BS EN 14414	-	Passed		
Root Resistance (refer to CC Root Resistance Testing)	DD CEN/TS 14416	-	Passed		
Reaction to Fire (refer to CC Fire Certification)	BS EN 13501	-	Euroclass B-s1, d0		
Hydraulic Performance					
Abrasion Resistance (cementitious barrier depth of wear)	ASTM C1353	mm/1000 Cycles	0.2		
Manning's Roughness Coefficient	ASTM D6460	n	0.011		
Recommended Permissible Velocity (intermediate fixings may be required - contact CC Ltd)		m/s	Application Dependent	<8.6	>8.6

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

