

## Concrete Canvas® GCCM Hydration Instructions

Concrete Canvas® is a Geosynthetic Cementitious Composite Mat (GCCM), part of a revolutionary new class of construction materials. It is a flexible, concrete impregnated fabric that hardens on hydration to form a thin, durable, water proof and fire resistant concrete layer. Follow the instructions below to correctly hydrate Concrete Canvas® GCCM (CC) once laid.

### Minimum volume of water required for each CC type:

	kg/sqm	L of water / sqm
CC5™	7	3.5
CC8™	12	6
CC13™	19	9.5

**SPRAY THE FIBRE SURFACE WITH WATER UNTIL IT FEELS WET TO TOUCH FOR SEVERAL MINUTES AFTER SPRAYING**



### Re-spray the Concrete Canvas® GCCM again after 1 hour if:

- Installing 5mm CC (CC5™)
- Installing CC on a steep or vertical surface

### Notes:

- An excess of water is always recommended. CC will set underwater and in seawater.
- CC must be actively hydrated. For example do not rely on rainfall or snowmelt.
- Use a spray nozzle for the best results (see CC equipment list). Do not jet high pressure water directly onto the CC as this may wash a channel in the unset CC.
- CC has a working time of 1-2 hours after hydration. Do not move or traffic CC once it has begun to set.
- Working time will be reduced in hot climates and increased in very cold climates.
- CC will set hard in 24 hours but will continue to gain strength over time.
- If CC is not sufficiently wetted, or dries out in the first 5 hours, the set may be delayed and strength reduced. If the set is delayed avoid trafficking the material and re-wet with an excess of water.

### Installation in Drying Conditions:

Drying conditions can affect CC in the first 5 hours after hydration resulting in excessive loss of water and preventing the specified strength gain.

- 1) Drying conditions occur when there is one or more of: high air temperature (>22°C), wind (> 12km/h), strong direct sunlight or low humidity (<70%). - Hydrate at dusk, where possible, and rehydrate 2 to 3 hours after initial hydration.
  - 2) Where conditions are very drying (eg temperature >28°C, moderate to strong breeze (>20km/h), strong direct sunlight, or low humidity < 70%, hydrate at dusk where possible. Monitor for first 5 hours and respray as soon as the surface ceases to be wet to the touch or respray at hourly intervals. Other methods to reduce evaporation such as covering the material may also be used.
- In drying conditions the CC should be inspected after 24 hours. If it is suspected that the material has over-dried: - *Re-wet, in accordance with these instructions. This will normally enable the CC to gain the specified strength, provided the CC has not been heavily trafficked or mechanically damaged prior to full set.*

### Installation in Low Temperature Conditions:

- 1) If the ground surface temperature is between 0 and 5°C and rising: CC should be covered with plastic sheeting immediately after hydration. CC may exhibit a delayed set at low temperatures.
  - 2) If the surface temperature is expected to fall below 0°C in the 8 hours following hydration: *use warm water (>15°C) mixed with CC accelerant and cover with plastic sheeting. It is important to only use accelerant supplied by Concrete Canvas Ltd as some admixtures may delay set or impair performance. Please contact Concrete Canvas Ltd with your specific temperature profile for a recommendation on the dosage of accelerant required.*
- It is not recommended to install CC if the ground surface temperature is likely to fall below -4°C within 24 hours of initial hydration.
  - It is not recommended to install CC on frozen ground as the ground may move significantly when it thaws, creating voids underneath the set CC.

### Storage

- CC should be stored under cover in dry conditions away from direct sunlight and in the manufacturer's sealed packaging.
- It is not recommended to store in shipping containers in direct sunlight where temperatures may exceed 40°C for prolonged periods.
- If stored correctly CC has a shelf life of 24 months. If stored for longer it may remain usable in many instances.

