

Wet or un-cured Concrete with Waterproofing membranes



Outline

Laying waterproofing systems on new concrete has always been an issue. Time pressures are constantly reducing time on site. Newly laid concrete shrinks. This occurs largely in the following 14 days and to a much lesser extent for the next 14 days.

The water in concrete is a lesser problem and water may reduce to low levels within the 14 – 30 day period as long as it is protected from further weather or site based wettings. It is also very important to clean and sweep the site. The open, clean surface will dry more rapidly. Concrete curing compounds are used to hold water, to prevent excessive shrinkage and to obtain maximum strength. Their use past 10 days is largely redundant. These curing compounds will drastically retard the concrete dry and make systems difficult to lay. The answer is their removal after 10 days. Use shot-blasting to remove them. This also cleans and opens up the surface and makes drying far more rapid. The loss of curing compounds will also enhance adhesion. Keeping the blasted surface and site clean and dry will enable early application of membranes.



Preparing a heavy duty concrete slab



Membrane onto a concrete slab

When planning to lay membranes within 7-14 days:

- Site warming and heating is not necessary and is impractical. However natural or forced air cross-ventilation over a continuous period will rapidly drop moisture levels. Closed areas will dry exceedingly slowly.
- Remove the curing compound ASAP to allow effective out-drying.
- Consider tenting from rain rewetting.
- Always keep all parties of the roof and the surface free from mud, and site dirt and dust. The latter will actively reduce drying.
- While early application is possible. Rain will affect that drying time (obviously).
- The contractor and all parties should consider what "obviously surface dry" means and then agree together to allow installation. self adhesive and torch-on membranes need an " Obvious surface dry).

It is very important when the installation programme is tight, to have open and clear site meetings with all parties to elaborate to all concerned, the requirements outlined above. Laying on concrete less than a month old maybe risky due to the variable nature of concrete, the laying conditions and the drying conditions. Endeavor always to plan the concrete pours to ensure a good curing and drying time. cont.....

Possible Installation options:

Days	Self-adhesive Options	Torch-on options	Preparation	Primer(S)
+2 – 7 days	Bituthene	Soprasun Sopralene Jardin Sopralene	Installation is risky. The concrete will be very wet and will be shrinking strongly during this period. The concrete surface will be weak and friable. <ul style="list-style-type: none"> • Shotblast, forced air for full two days before installation • Keep site surface clean • Employ cross ventilation prior 	Bituthene B2 primer. Bituthene Type C waterbased primer.
7 - 14	Bituthene	Soprasun Sopralene Jardin Sopralene	<ul style="list-style-type: none"> • Keep site surface clean and open. • Open the surface to accelerate internal moisture curing. • Employ cross ventilation prior 	Bituthene B2 primer. Bituthene Type C waterbased primer.
14 - 28	Bituthene	Soprasun Sopralene Jardin Sopralene	<ul style="list-style-type: none"> • Normal installations • .Keep site surface clean • Employ cross ventilation prior. • Observe that the surface is visibly dry. 	Bituthene B2 primer. Bituthene Type C waterbased primer. Nuplex membrane primer

NB:

- 1.0 Observe the "Obviously surface dry past a 7 day cure rule" .
- 2.0 Record concrete installation time& date and observe rain history.
- 3.0 Trials will always resolve applicability: The contractor should do trials to ensure good adhesion.

This advice is given in good faith. Take great care with wet, uncured concrete.

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