

# X100 Green Cure

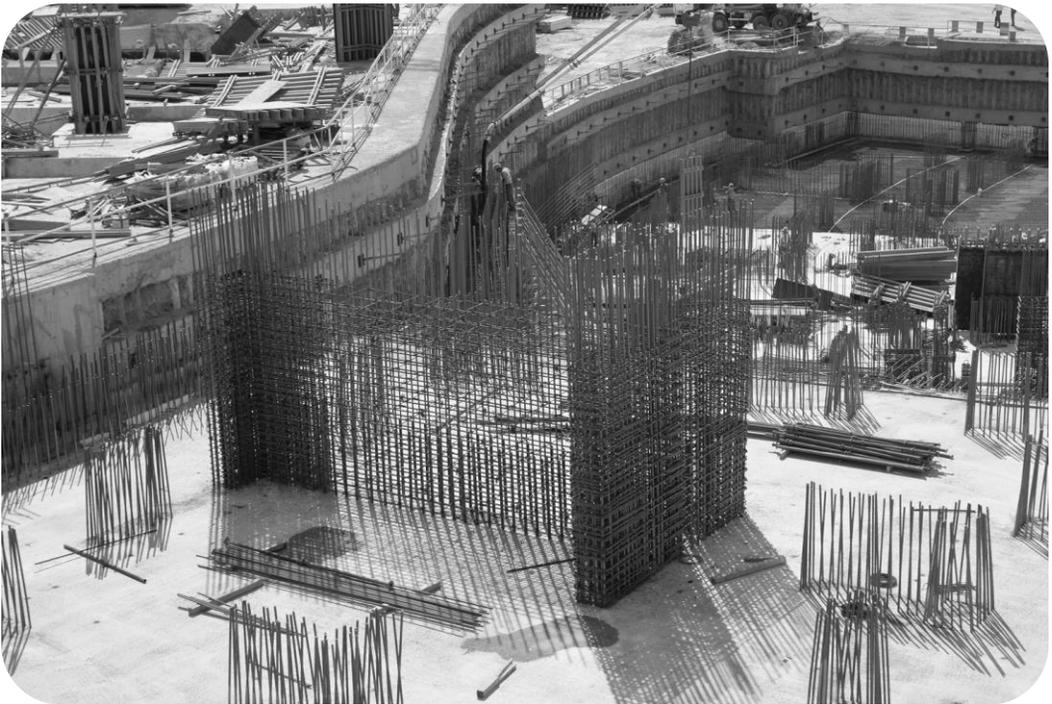
*An Overview of Material Characterisation & Performance*

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# Curing - Make the Right Choice

Curing is designed primarily to keep the concrete moist, by preventing the loss of moisture from the concrete during the period in which it is gaining strength.

Concrete that is allowed to dry out quickly will not achieve its desired strength and may undergo considerable early age drying shrinkage. Inadequate or insufficient curing is one of main factors contributing to weak, powdery surfaces with low abrasion resistance

Curing of concrete may be undertaken in a number of ways, water ponding, membrane forming compounds or by chemical means, however, the most appropriate means of curing is often dictated by the site or the construction methodology.

Water pond curing is widely regarded as the best curing method available. However, it is often replaced with less effective membrane-forming methods in deference to the logistical and economic difficulties associated with water ponding.

It is extremely important to check the subsequent floor finish as most membrane forming curing compounds require to be removed before the application of any applied floor finishes such as direct stick carpet and vinyl, epoxy or polyurethane coatings and ceramic tile adhesives.

These membrane forming compounds may affect the bond between concrete and subsequent surface treatments. Special care in the choice of a suitable curing regime needs to be exercised in such circumstances. The residue from some products may prevent the adhesion of flooring products and tiles onto the concrete surface.

X100 Green Cure is a colloidal silicate proprietary solution that is proven to be equal to that of water ponding and has exhibited significant improvements in the desired properties of hardened concrete to which it is introduced.

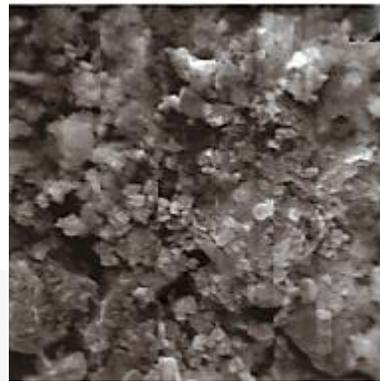
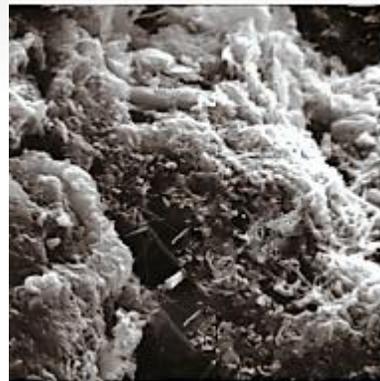
Although typically applied following the finishing phase, X100 Green Cure penetrates the concrete leaving no film or residue on the surface of the concrete, therefore having no adverse affect on the resultant floor finishes or coverings, providing improved flexibility and efficiencies to the project.



# Colloidal Silicate Technology

**X100 Green Cure** The pore-filling ability of the colloidal silicate technology improves the hardened mechanical properties of concrete. By contributing to a denser, less permeable and less porous structure. Concrete containing colloidal silicate demonstrates an increased compressive strength, decreased chloride diffusion, increased resistance to fire, decreased drying shrinkage, and an increased ability to withstand chemical attack.

It is well accepted that filling the voids and capillaries within the concrete will improve durability. Pores provide the primary transport routes of sources of attack in cement-based materials. It follows that to reduce the diameter of the pores reduces the access of these agents to the concrete's internal structure, thereby increasing durability.



# Effects on Shrinkage Cracking

Boral studies have shown that utilizing colloidal silicate reduces dry shrinkage cracking.

All capillaries & voids disappear because of its pore-filling technology. Up to 12% reduction can be achieved using a colloidal silicate. (



# Colloidal Silicate Technology - For Polished Concrete

## *X100 Green Cure – Time of Pour*

- ❖ Cure, Harden & Densify Concrete
- ❖ After trade friendly
- ❖ Environmentally Friendly & HACCP Certified
- ❖ Low Odour – 0.0g/l VOC





# X100 GREEN CURE

## Technical Data Sheet

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### Description & Uses

A non membrane forming colloidal silicate proprietary solution that provides an exceptional cure regime equal to water pond curing. Apply to the concrete surface immediately after initial set. Very effective cure regime for shot crete. Conforms to and achieves the cure requirements of **NZS 3109:1997** and **NZS 3101:Part 1:2006**.

### Features and Benefits

- Will cure concrete equal to water pond curing.
- Virtually eliminates plastic cracking.
- Low cost cure regime.
- Hardens surface and reduces dusts.
- Reduces shrinkage.
- Retards efflorescence.
- Can be used on vertical or horizontal substrates.
- Zero VOC, environmentally friendly, user safe.
- Compatible with most flooring and coating systems.
- After trade friendly.
- Indefinite shelf life.
- Minimum site disruption, trafficable after 2 hours.

### Testing and Certifications

The American Concrete Institute, ACI, defines curing as, "The process by which hydrolic-cement concrete matures and develops hardened properties over time as a result of the continued hydration of the cement in the presence of sufficient water and heat." Water curing is widely regarded as the best curing method available. However, it is often replaced with less effective membrane-forming methods in deference to the

logistical and economic difficulties associated with water ponding.

**X100 Green Cure** is not a membrane-forming compound, so **AS 3799:1998** is not relevant.

The goal of curing is to improve the hardened properties of concrete. When applied properly **X100 Green Cure** achieves the cure results required under **NZS 3109:1997 Concrete Construction** and **NZS 3101: Part 1 2006**.

### Recommended Substrate Conditions & Preparation

#### Important Notes:

1. Spray apply **X100 Green Cure** at a minimum of the Recommended Application Rates.
2. Do not apply on frozen substrate or when temperature is below 3°C when getting colder.
3. Do NOT apply if rain is forecast within 3 hours. If rain occurs in this time frame call your distributor for advice.
4. **X100 Green Cure** may etch glass/tiles or dull brushed and shiny aluminium and can be difficult to remove from other surfaces once it dries. Cover and mask surrounding surfaces or rinse immediately if sprayed.
5. On burnished concrete spread rate can be extended, contact us for advice.

### Additional Data and Precautions

Available in 5, 15, 200 and 1000 litre containers.

1. Protect areas not intended for coverage.
2. As good safety practice during spraying we recommend the use of a face mask during application. Refer to SDS.
3. Restrict access to areas being treated as surface may be slippery until all product has dropped in or removed from surface.
4. The green colour in **X100 Green Cure** aids application and dissipates after drying.
5. For more information read Material Safety Data Sheet available at [www.oxttek.com.au](http://www.oxttek.com.au)



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## DRAFT WARRANTY I-99 X100 Green Cure (Fit for Purpose)

1. Oxtex Solutions Pty Ltd warrants and represents that;
  - 1.1.1 X100 Green Cure will be new, free from any defects, and of best material, design, and workmanship.
  - 1.1.2 The treated concrete must comply with AS3600.
  - 1.1.3 X100 Green Cure will not detrimentally affect the adhesion of topical coatings to be used in the subsequent installation on the slab;
  - 1.1.4 X100 Green Cure will cure concrete equal to water ponding aligned with the cure requirements of NZS 3109:1997 & NZS 3101: Part 1:2006

For X100 Green Cure to perform to its full potential it must be applied as per the specification or Technical Data Sheet.

X100 Green Cure is a proprietary silicate silicate water-based formulation applied to concrete at time of pour giving excellent cure regime, reduces shrinkage cracking, Zero VOC, environmentally friendly and user safe.



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