X200 DENSI-PROOF™ Technical Data Sheet

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PERMANENT CONCRETE MOISTURE CONTROL & PROTECTION

Description & Uses

X200 Densi-Proof™ is a single pack one application spray on system that deeply penetrates new or existing concrete, provides curing, permanent waterproofing and protection. X200 Densi-Proof™ conforms to the moisture suppressant requirements as per **AS1884-2012**. Provides an effective moisture barrier for impervious floor coverings and coatings.

Features and Benefits

- Will cure concrete equal to water pond curing.
- Permanently waterproofs concrete from any direction.
- Moisture barrier for impervious coatings and coverings.
- Makes concrete impermeable, increasing longevity.
- Exceptional densifier and hardener for concrete.
- Increases tensile & compressive strength.
- Resists freeze thaw damage.
- Retards efflorescence.
- Can be used on vertical or horizontal substrates.
- Zero VOC, environmentally friendly, user safe.
- Compatibility with most flooring systems and coatings.
- After trade friendly.
- Indefinite shelf life.
- Reduces dry shrinkage cracking.
- Stabilises concrete pH
- Minimum site disruption, trafficable after 2 hours.
- Water cleanup.

Physical and Chemical Properties

Appearance:	Low viscosity cloudy-white liquid.
Odour:	Almost none.
pH:	Ca. 11.4
Initial Boiling Point/ Boiling Range:	> 100°C @ 760 mm Hg.
Flash-point:	Not applicable.
Flammability (solid, gas):	Not applicable.
Relative Density:	Ca. 1.10 @ 20°C.
Upper/Lower Flammability or Explosive Limits:	Not applicable.
Solubility:	Fully miscible in water.
Auto-ignition Temperature:	Product is not self-igniting.
Viscosity:	Low.
Volatile Organic Compounds (VOC) Content;	0.0 % w/w.

Recommended Substrate Conditions & Preparation

Freshly Placed Concrete: 5m² per litre
Existing Concrete: 5m² per litre

Important Notes:

1. Wax, paint, curing compounds or a burnished surface restricting access to concrete's interior must be chemically or mechanically removed for X200 Densi-Proof™ to penetrate and work properly.

2. Areas of high porosity have a faster penetration rate. These areas appear dry immediately after spraying and will require additional product.

3. Do not apply on frozen substrate or when temperature is below 3°C when getting colder. Call for advice if applying during colder periods.

4. Do NOT apply if rain is forecast within 3 hours..

5. Before applying any paint, adhesives or any other coatings, wait 24 hours after application with X200 Densi-Proof™. Pressure wash or sand and clean, then check visually to be satisfied purging has completed (If required a second or subsequent coats may be necessary). For further help and advice call our office. Always follow coating manufactures surface preparation requirements.

6. X200 Densi-Proof™ 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.

7. We recommend the use of a face mask during application. Refer to MSDS available from **www.oxtex.com.au**

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Application Guide

On Already-Set Concrete:

Note: In hot climates, mist-wet the surface with water and remove any puddles prior to application. Use best hot weather concrete placement techniques. Use of Alaphatic alcohol will not affect X200 Densi-Proof™

Apply X200 Densi-Proof™ using a low-pressure non-atomizing, spray apparatus such as a pump-tank or battery pack sprayer, complete with fan spray nozzle. Holding spray tip (eg .019" - .024") 150mm from surface, apply X200 Densi-Proof™ at minimum rate of **5m² per litre** with an overlapping spray pattern of 50%. Begin application at the lowest elevation. For example, walls and slopes should be applied side to side, from the bottom up.

Using a soft broom sweep and spread out puddled product as it penetrates. Do not allow product to puddle dry on the surface. If product gels on the surface remove with a squeegee.

At Time of Pour:

Apply with a low-pressure non-atomizing, spray apparatus such as a pump-tank or battery pack sprayer. X200 Densi-Proof™ is ideally applied to the newly-poured concrete surface as soon as is practical following its surface finishing phase. Should conditions require the surface to be walked on, for application, concrete should be allowed the time to adequately set, so as not to imprint or mar its surface during application. Recommended minimum coverage rate is **5m² per litre**. Floor coverings and coatings can be installed after 14 days from concrete placement and X200 Densi-Proof™ application.

Caution: If X200 Densi-Proof™ comes into contact with glass or ceramic tiles it should be flushed with water and not be allowed to dry, since glass/tiles will etch. X200 Densi-Proof™ will dull the shine on shiny aluminium. Mask and protect any area not to be sprayed.

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

Warranty Registration

Call or email the Oxtek Solutions office to arrange personal assistance and advice anywhere in Australia or New Zealand. We have technical expertise and experience to help and consult on your next project or help your existing project maintain time and budget. An issued warranty is project specific and will require us to provide consultation and a registered specification number.

Call **+61 3 9798 7534** or

Email **reception@oxtek.com.au** today.

Warranties are not available on concrete older than 15 years, call for advice today.

Testing and Certifications

Test		Control Sample*	Densi Proof Sample	Results Comparison
Designation	Property			
AS 1012.9 ASTM C39	Compressive Strength	28.9 MPa 4,191 psi	31.0 MPa 4,496 psi	7% Increase
AS 1012.8 ASTM C78	Flexural Strength	2.52 MPa 365 psi	2.89 MPa 419 psi	15% Increase
Chaplin Abrader	Abrasion Loss	2.47 mm 0.10 in	1.46 mm 0.06 in	41% Reduction
Surface Dusting		2.57 g/0.25 m^2	1.78 g/0.25 m^2	31% Reduction
ASTM C1202	Rapid Chloride Penetration	597 / 543 / 10,097 Coulombs	148 / 136 / 6,582 Coulombs	35% to 75% Reduction
HKHA B2.9	Sorptivity	0.164 mm/(min)$^{1/2}$	0.010 mm/(min)$^{1/2}$	94% Reduction
ACCI Water Permeability Test	Water Permeability	1.5 x 10^{-13} m/s	2.5 x 10^{-14} m/s	83% Reduction
USACOE C48	Water Permeability	NA	0 Leakage @ 30.5 m Head Pressure 0 Leakage @ 100 ft Head Pressure	
DIN 1048	Water Permeability	98.4 mm @ 0.33 hrs 3.9 in @ 0.33 hrs	5.5 mm @ 72 hrs 0.22 in @ 72 hrs	94% Reduction
ASTM C666	Mass Loss @ 300 Freeze/Thaw Cycles	4.8%	0.7%	85% Reduction

*Note – All control samples were moisture cured.

March 2013