



THE NAME SAYS IT ALL

X200 DENSI-PROOF™

Technical Data Sheet

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Document #: TDS 200 V1 NZ
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PERMANENT CONCRETE CURE MOISTURE CONTROL & PROTECTION

Description & Uses

X200 Densi-Proof™ is a single pack one application spray-on system that deeply penetrates new or existing concrete, providing curing, permanent waterproofing and protection. X200 Densi-Proof™ conforms to the moisture suppressant requirements as per **NZAS1884-2013** 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.
- 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.
- Suitable for new and existing concrete.
- Compatible with flooring systems and concrete coatings.
- After trade friendly.
- Indefinite shelf life.
- Substantially reduces dry shrinkage cracking.
- Stabilises concrete pH.
- Minimum site disruption, trafficable after 2 hours.
- Water cleanup.

Physical and Chemical Properties

Appearance:

Odour:

pH:

Initial Boiling Point / Boiling Range:

Flash-point:

Flammability (solid, gas):

Relative Density:

Upper/Lower Flammability or Explosive Limits:

Solubility:

Auto-ignition Temperature:

Viscosity:

Volatile Organic Compounds (VOC) Content:

Low viscosity cloudy-white liquid.

Almost none.

Ca. 11.4

> 100°C @ 760 mm Hg.

Not applicable.

Not applicable.

Ca. 1.10 @ 20°C.

Not applicable.

Fully miscible in water.

Product is not self-igniting.

Low.

0.0 % w/w.

Recommended Substrate Conditions & Preparation

Freshly Placed Concrete: 5m² per litre

Existing Concrete: 5m² per litre

Important Notes:

1. Dusts, wax, paint, curing compounds, adhesives 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. Surface will usually remain ponded for about 15 minutes after application then progressively soak into concrete over the next 45 minutes. Squeegee off excess product after 1 hour
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. Outdoors DO NOT apply if rain is forecast within 3 hours.
5. After applying to already set and cured concrete and before applying any paint, adhesives or any other coatings, wait a minimum of 24 hours after

application of X200 Densi-Proof™. Check that concrete surface is dry and any purging has completed.

Pressure wash or sand clean. Always follow coating or covering manufacturer's surface preparation requirements. Pressure wash or abrade floor clean, then check visually that purging of any contaminants has completed. If being used to purge contamination addition applications may be required. Contact Gilt Edge for a site specific Specification if required.

6. Concrete being treated must be fit for purpose for proper function of X200 Densi-Proof™. Structural, control and cold joint or large cracks will not be repaired with a X200 Densi-Proof™ application.
7. 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.

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

Refer to MSDS available from

www.protectcretenz.co.nz



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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

On Already-Set Existing Concrete:

Apply X200 Densi-Proof™ using a low-pressure non-atomizing, spray apparatus such as a pump-tank sprayer or a battery pack sprayer, complete with fan spray nozzle (eg .019" - .024"). Holding spray tip 150mm from surface, apply X200 Densi-Proof™ at minimum rate of **5m² per litre** with an overlapping spray pattern of 50%. Walls and slopes should be applied side to side, from the bottom up. Use of dust mask is recommended. Using a soft broom sweep and spread out puddled product as it penetrates. Do not allow product to puddle dry on the surface (remove off surface after one hour). If product gels on the surface remove with a squeegee.

At Time of Concrete Pour:

Apply with a low-pressure non-atomizing, spray apparatus such as a pump-tank sprayer 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. If application is required before 14 days please contact your Gilt Edge representative.

Caution: 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.

Warranty Registration & Training

An issued 15 year warranty is project specific and will require us to provide consultation, a site specific specification and a registered specification/warranty number prior to the commencement of product application. A Warranty Application Form, will be forwarded to the

applicator, and must be completed in full by the applicator, and forwarded to **Gilt Edge Industries** at the end of the project. For all customers requiring a written warranty, all applicators must be fully trained, and approved by either **Gilt Edge Industries** or **Protect Crete NZ Ltd**.

Testing and Certifications

Middle Tennessee
State University
Testing and Review



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	18% 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.

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For more information visit : www.protectcretenz.co.nz or www.giltedge.co.nz



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Manufactured by Oxtex Australia