



PERMANENT CONCRETE MOISTURE CONTROL & PROTECTION

Description & Uses

Densi-Proof™ is a single pack one application spray on system that deeply penetrates new or existing concrete, provides curing, permanent waterproofing and protection. 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.
- 15 year warranty on new placed concrete.
- Indefinite shelf life.
- Reduces dry shrinkage cracking.
- Warrantee available on existing concrete up to 15 years of age.
- Stabilises pH.
- Minimum site disruption, trafficable after 2 hours.
- Water cleanup.

Physical and Chemical Properties

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

Recommended Substrate Conditions & Preparation

Freshly Placed Concrete:	4.5m ² per litre.
Existing Concrete:	4.5m ² 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 PROTECT CRETE® 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.
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 PROTECT CRETE® 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 required). Always follow coating manufactures surface preparation requirements.
6. PROTECT CRETE® 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 painters mask during application. Refer to MSDS available from www.oxtekaus.com

Application Guide

Issued: 22nd June 2015
Document #: 105 v5
Page 2 of 2

On Already-Set Concrete:

Note: In hot climates, mist-wet the surface with water and remove any puddles prior to application.

Apply Densi-Proof™ using a medium to high-pressure airless spray unit, complete with fan spray nozzle. Holding spray tip (eg .019" - .024") 150mm from surface, apply Densi-Proof™ at minimum rate of 4.5m² 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 sprayer or airless set at 800psi. 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 4.5m² per litre. Floor coverings and coatings can be installed after 14 days from placement and Densi Proof application.

Caution: Like many construction materials including fresh concrete Densi-Proof™ contacting glass should be flushed with water and not be allowed to dry, since glass/tiles will etch. Densi-Proof™ will dull the shine on shiny aluminium, however, aluminium's integrity will be otherwise unaffected.

Additional Data and Precautions

Available in 20, 205 and 1250 litre containers.

1. Any coatings or burnished surface that may restrict penetration access to the concrete's interior must be chemically or mechanically removed for Densi-Proof™ to penetrate.
2. Protect areas not intended for coverage.
3. Densi-Proof™ may etch glass/tiles or dull shiny aluminium and can be difficult to remove from other surfaces once it dries.

4. Do not apply on frozen substrate. Only apply if temperature is 3°C and rising.
5. As good safety practice we do recommend the use of a face mask during application. Refer to MSDS.
6. Warranties are not available on concrete older than 15 years, call for advice.
7. For more information read Material Safety Data Sheet available at www.oxtekaus.com

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