



THE NAME SAYS IT ALL

X280™ DENSI-PROOF™ REO PROTECT™

Technical Data Sheet

Issued: 3rd September 2020
Document #: TDS 280 V1 NZ
Page 1 of 2

PERMANENT ENGINEERED PROTECTION FOR CONCRETE & STEEL REINFORCEMENT



Description & Uses

X280 Densi-Proof Reo Protect™ effectively prevents conditions that create and/or promote corrosion activity, arresting, or at the very least significantly retarding rust producing reactions.



Features and Benefits

- Prevents or Greatly Retards Any Future Corrosion
- Greatly Retards Existing Corrosion
- Significantly Densifies Concrete
- Internally Waterproofs Concrete
- Makes Concrete More Durable
- Suitable for steel fibre reinforcing
- Greater Surface Bondability
- Restricts Vapour Transmission
- Preserves Concrete's Integrity
- Eliminates Internal Water Migration
- Resists Freeze-Thaw Damage
- Adds Surface Abrasion Resistance
- Decreases Dusting Potential
- Increases Acid / Chemical Resistance
- Retards rainwater penetration and carbonation
- Lowers Chemical Reaction Potential

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.
Flammability or Explosive Limits:	Not applicable.
Relative Density:	Ca. 1.10 @ 20°C.
Solubility:	Fully miscible in water.
Auto-ignition Temperature:	Product is not self-igniting.
Viscosity:	Low.
Volatile Organic Compounds (VOC) Content:	0.0 % w/w.
Per Cent Volatile:	Ca. 0 % w/w.

Recommended Substrate Conditions & Preparation

Freshly Placed Concrete: One application @ 5m² per litre.
Existing Concrete: One application @ 5m² per litre.

1. Wax, paint, curing compounds, protective coatings, formwork release agents or a burnished surface restricting access to concrete's interior must be chemically or mechanically removed for X280 Densi-Proof Reo Protect™ 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. What has not soaked in after 1 hour should be removed with an air blower or squeegee.
3. Do not apply if the ambient temperature is below 3°C over 34°C. Plan to apply in the cool of the late afternoon or early morning. Mist wet the surface before applying in hot windy conditions.
4. Do not apply if raining or rain is expected within 3 hours of application completion. If rain falls on treated area within

- 3 hours of application call **Gilt Edge** for instruction and advice.
5. Before applying any paint, adhesives or any other coatings, wait minimum 24 hours after application with X280 Densi-Proof Reo Protect™. 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 requirements.
6. X280 Densi-Proof Reo Protect™ 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. Avoid windblown spray drift. Do not walk product over other surfaces.
7. X280 Densi-Proof Reo Protect™ spray mist has zero grams per litre VOC however, we do recommend the use of a face mask during application. Refer to MSDS at -
www.protectcretenz.co.nz
Available in 5, 15, 200 and 1000 litre containers.



X280™ DENSI-PROOF™ REO PROTECT™

Technical Data Sheet

Application Guide

Issued: 3rd September 2020
Document #: TDS 280 V1 NZ
Page 2 of 2

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 X280 Densi-Proof Reo Protect.™

As a Cure Method at Time of Pour:

Apply with a low-pressure non-atomizing, spray apparatus such as a pump-tank or battery pack sprayer. X280 Densi-Proof Reo Protect™ 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 as a cure method is 5m² per litre with an overlapping spray pattern of 50%.

On Already-Set Concrete:

Holding spray tip (eg .019" - .024") 150mm from surface, apply X280 Densi-Proof Reo Protect™ 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.

On verticle or over head surfaces back to back applications may be required to achieve 5m² per litre. Apply each coat to just prior to point of saturation.

Do not allow X280 Densi-Proof Reo Protect™ to puddle dry on the surface. If product gels on the surface remove with a squeegee.

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. Full training and installation advice is available for the full Protect Crete product range. Call your local Gilt Edge store to arrange this complimentary help today.

www.giltedge.co.nz

Testing and Certifications

Middle Tennessee State University
Testing and Review



Test		Control Sample*	Densi Proof Reo Protect 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

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



PROTECT CRETE NZ Ltd
PO Box 10080, Rotorua Mail Centre
Rotorua 3046
Ph: +64 9 441 9003
Email: sales@protectcretenz.co.nz



Gilt Edge Industries
CHC: 03 379 7067
AKL: 09 443 7067
PH: 0800 445833
Email: help@giltedge.co.nz

Technical & Sales Assistance
Email: sales@giltedge.co.nz
www.giltedge.co.nz

Manufactured by Oxtex Australia