



# X263 MEDI-VET<sup>®</sup> REPELLER

## Technical Data Sheet

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## SteriTouch<sup>®</sup> ANTIMICROBIAL WITH ADDED SURFACE PROTECTION



### Description & Uses

**X263 Medi-Vet<sup>®</sup> Repeller** is a single pack one application spray on system that deeply penetrates new or existing clean concrete, permanently filling the concrete's porosity, provides curing, waterproofing, and deep matrix resistance to bacteria, moulds and fungi. **X263 Medi-Vet<sup>®</sup> Repeller** with **SteriTouch<sup>®</sup>** has independent antimicrobial testing showing complete protection against *E.coli* and *Methicillin Resistant Staphylococcus aureus*. The added **X300 Repeller<sup>™</sup>** provides surface protection and ease of cleaning against acids, oils, water based stains, chemicals, body fluids, wine, grease and others. 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.
- Makes concrete impermeable, increasing longevity.
- Resists surface staining.
- Proven control of *E.coli* and *Staphylococcus aureus*.
- Resists freeze thaw damage.
- Retards efflorescence.
- Reduces surface erosion, extending concrete's life.
- Used on horizontal & vertical substrates.
- Zero VOC, environmentally friendly, user safe.
- Compatible with epoxy and acrylic line marking paints.
- Eliminates moulds and odours.
- Indefinite shelf life.
- Minimum site disruption, trafficable after 2 hours.
- Reduces dry shrinkage cracking.
- Independent antimicrobial efficacy testing.
- Substantially reduces cleaning water usage.
- Acid and effluent resistant.

### Physical and Chemical Properties

<b>Appearance:</b>	Low viscosity cloudy-white liquid.
<b>Odour:</b>	Almost none.
<b>pH:</b>	Ca. 11.4
<b>Initial Boiling Point / Boiling Range:</b>	> 100°C @ 760 mm Hg.
<b>Flash-point:</b>	Not applicable.
<b>Flammability (solid, gas):</b>	Not applicable.
<b>Upper/Lower Flammability or Explosive Limits:</b>	Not applicable.
<b>Relative Density:</b>	Ca. 1.10 @ 20°C.
<b>Solubility:</b>	Fully miscible in water.
<b>Auto-ignition Temperature:</b>	Product is not self-igniting.
<b>Viscosity:</b>	Low.
<b>Volatile Organic Compounds (VOC) Content:</b>	0.0 % w/w.
<b>Per Cent Volatile:</b>	Ca. 0 % w/w.

### Recommended Substrate Conditions & Preparation

- |                                 |                            |  |
|---------------------------------|----------------------------|--|
| <b>Freshly Placed Concrete:</b> | 5m <sup>2</sup> per litre. | 4. Do NOT apply if rain is forecast within 3 hours.  |
| <b>Existing Concrete:</b>       | 5m <sup>2</sup> per litre  | 5. Before applying any paint, wait 24 hours after application with <b>X263 Medi-Vet<sup>®</sup> Repeller</b> . Always follow paint manufacturer's surface preparation guidelines and requirements. |
- Important Notes:**
1. Wax, paint, curing compounds or a burnished surface restricting access to concrete's interior must be chemically or mechanically removed for **X263 Medi-Vet<sup>®</sup> Repeller** 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 or hotter periods.
  6. **X263 Medi-Vet<sup>®</sup> Repeller** 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.protectcretenz.co.nz**



THE NAME SAYS IT ALL

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### Application Guide

**Note:** In hot climates, mist-wet the surface with water and remove any puddles prior to application. Follow best accepted hot weather slab placing practice.

#### On Already-Set Concrete:

Apply **X263 Medi-Vet<sup>®</sup> Repeller** Apply with a low-pressure non-atomizing, spray apparatus such as a pump-tank sprayer or a battery pack sprayer, complete with fan spray nozzle. Holding spray tip (eg .019" - .024") 150mm from surface, apply **X263 Medi-Vet<sup>®</sup> Repeller** at minimum rate of **5m<sup>2</sup> 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.

#### As a Cure Method at Time of Pour:

Apply with a low-pressure non-atomizing, spray apparatus such

as a pump-tank sprayer or battery pack sprayer. **X263 Medi-Vet<sup>®</sup> Repeller** 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 **5m<sup>2</sup> per litre**. Work quickly as when product dries it will repel itself.

#### Caution: For newly placed unused concrete only.

For existing, soiled, used and old concrete a two part system should be used. **X260 Medi-Vet<sup>®</sup>** will decontaminate and purge deep seated unwanted substances to the surface and these need to be removed prior to finishing with the **X310 Repeller SteriTouch<sup>®</sup>**.

Call your Gilt Edge Rep for advice. **0800 445833**

### Additional Data and Precautions

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

1. X550 is a penetrative product which sets as CSH gel in the capillaries of the concrete. In new concrete pours particularly, minerals may purge to the surface and will appear as a white

powdery substance. This can be scrubbed off or will wear away.

2. Restrict heavy use for 24 hours after application.

### 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**.

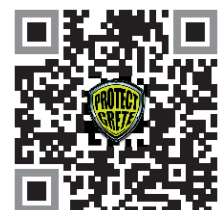
### Testing and Certifications

Middle Tennessee  
State University  
Testing and Review

Test		Control Sample	Medi Vet	Results
Designation	Property	All concrete controls are water cured	Sample	Comparison
AS 1012.9 ASTM C39	Compressive Strength	28.9MPa 4,191 psi	31.0 MPa 4,496 psi	<b>7% Increase</b>
AS 1012.8 ASTM C78	Flexural Strength	2.52 MPa 365 psi	2.89 MPa 419 psi	<b>15% Increase</b>
Chaplin AbraderA	brasion Loss	2.47 mm 0.10 in	1.46 mm 0.06 in	<b>41% Reduction</b>
Surface Dusting		2.57 g/0.25 m <sup>2</sup>	1.78 g/0.25 m <sup>2</sup>	<b>31% Reduction</b>
ASTM C1202	Rapid Chloride Penetration	597 / 543 / 10.097 Coulombs	148 / 136 / 6.582 Coulombs	<b>35% to 75% Reduction</b>
HKHA B2.9	Sorptivity	0.164 mm/(min) <sup>1/2</sup>	0.010 mm/(min) <sup>1/2</sup>	<b>94% Reduction</b>
ACCI Water Permeability Tset	Water Permeability	1.5 x 10 <sup>-13</sup> m/s	2.5 x 10 <sup>-14</sup> m/s	<b>83% Reduction</b>
USACOE C48	Water Permeability	NA	0 Leakage @ 30.5 m Head Pressure 0 Leakage @ 100 ft Head Pressure	
DIN 1048W	ater Permeability	98.4 mm @ 0.33 hrs 3.9 in @ 0.33 hrs	5.5 mm @ 72 hrs 0.22 in @ 72 hrs	<b>94% Reduction</b>
ASTM C666	Mass Loss @ 300 Freeze/Thaw Cycles	4.80%0	.70%	<b>85% Reduction</b>
ISO 22196 JIS Z 2801:2000	Antimicrobial Performance*	Number of live organisms (Colony Forming Units)		<b>&gt;99.995% Reduction</b>
		0 Hours 140000	0 Hours 140000	
		24 Hours 220000	24 Hours < 10	

\*Test bacteria: *Escherichia coli*, Methicillin resistant *Staphylococcus aureus*

May 2018



For more information visit: [www.protectcretenz.co.nz](http://www.protectcretenz.co.nz) or [www.giltedge.co.nz](http://www.giltedge.co.nz)



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Manufactured by Oxtex Australia



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**SteriTouch is an established brand in antimicrobial technology, based in the UK.** The anti microbial performance of **X263 Medi-Vet<sup>®</sup> Repeller** is confirmed by independent laboratory testing to the international standards (JIS and ISO) and is proven to be 99.99% effective against MRSA and E.coli (test reports available on request). With the combination

of **SteriTouch<sup>®</sup> X263 Medi-Vet<sup>®</sup> Repeller** creates a permanent barrier against the growth of bacteria, biofilm and moulds.

**SteriTouch is safe.** SteriTouch is an additive based on ionic silver.

We do not use nano-silver, triclosan or other organic antimicrobial additives which have health and environmental concerns. The additives we use are non-leaching and non-sensitising.

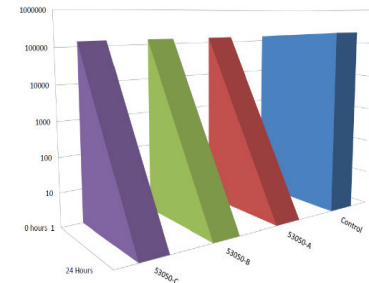
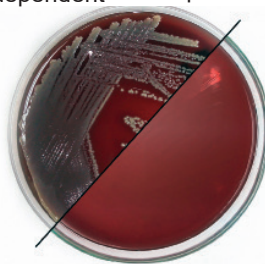
**SteriTouch gives continuous protection.** Ionic silver based additives will not lose efficacy due to leaching or migration, they are evenly dispersed and embedded through out **X263 Medi-Vet<sup>®</sup> Repeller** even scratches and abrasion do not effect the antimicrobial performance. Cleaning chemicals such as chlorine bleach, disinfectants, alcohol and even harsh industrial products like MEK (methyl ethol keytone) will no diminish the antimicrobial properties of **X263 Medi-Vet<sup>®</sup> Repeller**.

### Independent Antimicrobial Test Report

Evaluation of the antimicrobial performance of samples containing antimicrobial additives. All testing is conducted by an independent laboratory using the ISO 22196 / JIS Z 2801:2000 test method, briefly summarised as follows;

Each test sample is inoculated with a suspension of the test organism. The inoculation is held in contact with the test sample using a sterile polyethylene film. All test

samples are inoculated in triplicate, with an additional three replicates of the control. The bacterial population on three control replicates is evaluated immediately following inoculation. This is assumed to be the initial population on all test samples (i.e. the population at zero hours). The remaining samples are incubated for the test period (24 hours) at 35°C, at which time the bacterial population is evaluated.



### MRSA (Methicillin Resistant Staphylococcus aureus)

Tested at 35°C

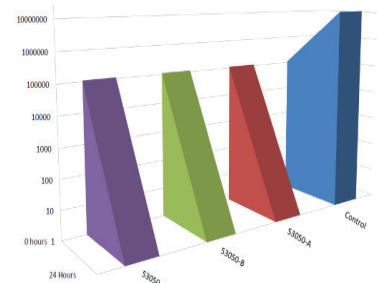
Sample		Number of live organisms (Colony Forming Units)		%reduction of Colony Forming Units, expressed as comparison with control	
		0 hours	24 hours		
Control	Untreated polyethelene film	140000	220000	N/A	
53050-A	X260 Medi-Vet with ST1156	140000	<10	>99.99991% Reduction	EXCELLENT
53050-B	X260 Medi-Vet with ST1156	140000	<10	>99.99991% Reduction	EXCELLENT
53050-C	X260 Medi-Vet with ST1156	140000	<10	>99.99991% Reduction	EXCELLENT

Notes: CFU = Colony Forming Units  
The theretical limit of detection is 10 CFU. If no bacteria are recovered the result is reported as "10 CFU".

### Escherichia coli

Tested at 35°C

Sample		Number of live organisms (Colony Forming Units)		%reduction of Colony Forming Units, expressed as comparison with control	
		0 hours	24 hours		
Control	Untreated polyethelene film	110000	120000000	N/A	
53050-A	X260 Medi-Vet with ST1156	110000	<10	>99.99991% Reduction	EXCELLENT
53050-B	X260 Medi-Vet with ST1156	110000	<10	>99.99991% Reduction	EXCELLENT
53050-C	X260 Medi-Vet with ST1156	110000	<10	>99.99991% Reduction	EXCELLENT



For more information visit: [www.protectcretenz.co.nz](http://www.protectcretenz.co.nz) or [www.giltedge.co.nz](http://www.giltedge.co.nz)



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