

TECHNICAL DATA SHEET



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DEFLECTA ANTIMICROBIAL® FLOORS

PRODUCT CODE NO#J01DA/F

CONCRETE BACTERIAL CONTROL – With Internal Moisture Protection

PRODUCT INTENT

DEFLECTA ANTIMICROBIAL® is a clear aqueous born biocide formulation with bacterial control which produces a sanitised environment on the surface and within the concrete matrix with an internal moisture suppressant - the best solution for bacterial control.

DEFLECTA ANTIMICROBIAL® is an Australian Government Certified and Registered Product

APVMA APPROVAL NO: 60195/56867

PRODUCT DESCRIPTION

- DEFLECTA ANTIMICROBIAL® is an inorganic silicon-containing material
- Has imbedded bacterial control
- Impregnates both new and aged concrete with a highly reactive biocide killing bacteria

BENEFITS

A concrete cure and moisture suppressant with bacterial infection control

- Kills disease carrying bacteria in or on concrete including; Staphylococcus Aureus (Golden Staph) – Listeria – Escherichia Coli (E.Coli) – Salmonella
- Active at 99.99% up to a depth of 100mm into the concrete matrix
- Suppresses growth of mould, mildew and fungi
- Low VOC*
- Zero VOS*
- Water based and non-toxic formulation
- Bio-degradable
- Creates a bacterial barrier that prevents the ingress of waste and toxic liquids
- Purges waste material and odours i.e. Urine, Oil etc., from aged concrete while sanitising it's matrix and surface.
- Increases surface abrasion resistance and hardens concrete surface
- Prevents internal water migration
- Permanently seals concrete internally
- Increases both compressive and flexural strength
- Excellent pre-treatment for topical coatings
- Allows necessary vapour transmission
- Approved by:-
 - The Australian Water Quality Centre for use in concrete Potable Water Storage
 - AQIS for use in food process / manufacturing facilities
 - HACCP for use in food areas

*VOC/VOS = Volatile Organic Compounds and Volatile Organic Solvents

FEATURES

All concrete areas requiring bacterial and moisture control

- For both new and aged concrete
- Has a biocide treatment that kills bacteria
- Sanitises surface and internal matrix
- Can be applied to both interior or exterior concrete slabs in areas such as food and beverage industry, pharmaceutical industry and health facilities, agricultural, dairy, animal husbandry, manufacturing/processing, education and school facilities
- Product is safe to use near humans and animals (suitable for potable water)
- Product *will not alter* the physical surface appearance of the concrete when the opaque product is applied

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PHYSICAL PROPERTIES – TECHNICAL PRODUCT PERFORMANCE

Physical Appearance	Opaque Liquid
Base	Water
Flammability	None
Odour	Slight
VOC/VOS content*	VOC - < 10 grams per litre VOS - Zero
Toxicity	None
Ph	10 – 11
Flash point	None
Hazardous vapours/materials	None
Drum Size	20 Litres
Surface bond quality	Excellent
Boiling point	110°C
Specific gravity	1.11±
Waste disposal methods	Non-hazardous
Freeze temperature	below 0°C
Consumption rates for floors We have provided the minimum consumption rates. You may require additional material due to surface porosity, surface profile and wastage etc. All project consumption rates will be site specific and will need to be assessed individually.	CONCRETE FLOOR Total consumption: <ul style="list-style-type: none"> 4.5m² per litre <u>Bacteria and moisture treatment for floors</u>
Shelf life	1 year Do not store containers in direct sunlight or high temperatures and provided product is kept in the original container and tightly sealed when not in use. Do not allow product to freeze.
Required condition of surface prior to application	DEFLECTA ANTIMICROBIAL® must have clear access to the total surface of the concrete to be treated. Steel trowel finish, not burnished To test surface porosity, place a small amount of water on the concrete surface and watch for penetration. If there is no penetration of the water within two minutes the surface is not suitable for the application of DEFLECTA ANTIMICROBIAL® at that time. Grind or sand to an open surface finish
Internal concrete moisture suppressant	Yes
Liquid formulation	Yes
New and aged concrete purging agent	Yes
Cleaning of tools	Clean all tools and equipment with water immediately after use

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APPLICATION – For Concrete Floors

A. PRECAUTIONS	1	Do not proceed with application of DEFLECTA ANTIMICROBIAL [®] when the ambient temperature and or surface temperature is less than <8°C or greater than >30°C
	2	In hot and windy climates, mist wet the surface with water and remove any standing water prior to application. Surface cooling operation should only commence after surface sheen has diminished.
	3	Caution should be taken to avoid contact with glass and aluminium as it can etch. Adequate measures need to be taken to avoid contamination of other surfaces during application. Should contamination occur immediately wipe (wash) down with fresh water and a clean cloth before product dries.
	4	Once DEFLECTA ANTIMICROBIAL [®] has been applied to floors, wait 14 days on new concrete or 48 hours on existing, before applying impervious coatings, coverings etc.
	5	DEFLECTA ANTIMICROBIAL [®] only seals the concrete itself, not fractures/cracks.
	6	Some discolouration may occur on the surface in hot and dry conditions. If discolouration occurs, wait until all product has penetrated and then hose area with water to remove.
	7	Do not re-enter treated areas until the sealant has penetrated the concrete.
	8	Do not allow material to sit on the surface and dry. If this occurs the material will need to be removed mechanically prior to any floor coverings or coating being installed
	9	Clean all tools and equipment with water immediately after use
B. PRIOR TO APPLICATION Ensure concrete surface is clean and free of deleterious materials. These include such things as laitance, salts, paints, epoxies, builders and plaster dust and waste vegetable, oils or animal fluids. Remove waste by light sanding, diamond grinding or wet/dry commercial vacuuming.	1	DEFLECTA ANTIMICROBIAL [®] must have clear access to the total surface of the concrete to be treated.
	2	To test surface porosity, place a small amount of water on the concrete surface and watch for penetration.
	3	If there is no penetration of the water within two minutes the surface is not suitable for the application of DEFLECTA ANTIMICROBIAL [®] at that time.
	4	The surface will require mechanical preparation by sanding or diamond grinding to allow DEFLECTA ANTIMICROBIAL [®] to ingress into the concrete.
	5	On completion of sanding/grinding, ensure all loose dust residue is removed from the surface before the application of DEFLECTA ANTIMICROBIAL [®] .

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APPLICATION – For Concrete Floors – Cont.

<p>C. APPLICATION</p> <p><u>Aged Concrete</u></p> <p><i>Cured</i></p> <p>Note: Check whether DEFLECTA ANTIMICROBIAL® has purged to the surface of the concrete any oil, greases and salt etc. These must be thoroughly washed or abraded away before adhesives or coatings are applied.</p>	1	DEFLECTA ANTIMICROBIAL® is recommended to be applied to existing concrete with a low to medium pressure sprayer using a fan tip.
	2	Pre-wet area of application with clean water to rehydrate concrete to help reduce surface tension. All standing water areas must be dispersed prior to the application of DEFLECTA ANTIMICROBIAL®.
	3	For normal class concrete, apply DEFLECTA ANTIMICROBIAL® at a rate no less than 4.5m ² per litre. Apply the first application covering the area in one direction with an overlapping spray pattern of approximately 300mm and once penetrated through the surface (normally 10 – 60 minutes) but not dry, then apply the second application at 90 degrees.
	4	Start application holding spray tip approximately 200-300mm from concrete surface.
	5	Entire area being treated is to be saturated, but do not allow DEFLECTA ANTIMICROBIAL® to pool or puddle. Disperse standing product with a broom 15-30 minutes after application. Do not allow product to dry on the surface as this may cause discolouration and may become slippery if rehydrated.
	6	Areas of high porosity have a faster penetration rate. These areas appear dry immediately after spraying and will require additional product until saturation occurs.
	7	When temperatures are extremely hot, the surface to which DEFLECTA ANTIMICROBIAL® has been applied may need to be cooled with water following application. Surface cooling operation should only commence after surface sheen has diminished.
	8	Always start application at the lowest possible areas and proceed to higher elevations. On vertical application (walls) start at the bottom and proceed up the vertical surface with horizontal strokes.
	9	When application is to weeping hydrostatic walls or floors, at least two applications are necessary with the second applied immediately following the first.
	10	Clean all tools and equipment with water immediately after use
<p>D. APPLICATION</p> <p><u>New Concrete</u></p> <p><i>Cure and Seal</i></p>	1	For best results apply DEFLECTA ANTIMICROBIAL® to new concrete within 24 hours of pour. Start application as soon as the concrete has reached initial set or as soon as it can be walked on without imprinting (after completion of power trowel)
	2	Use steps <u>1 to 10</u> as per Application Procedure for Aged Concrete (above)

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APPLICATOR

APPLICATION: This product must be applied by one of the manufacturer's accredited applicators.

CHECKLIST: Applicator Checklist to be completed and returned within 14 days of application to comply with warranty requirements

STORAGE AND DISPOSAL

KEEP OUT OF REACH OF CHILDREN

Store in the closed original container in a dry, cool, well-ventilated area. Do not store in direct sunlight or high temperatures. Triple or preferable pressure rinse containers before disposal. Dispose of rinsing's in an approved manner. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean container to recycler or point of sale. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. Empty containers and product should not be burnt.

SHELF LIFE is 12 months provided product is kept in the original containers and tightly sealed.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. When using the product, wear cotton overall buttoned to the neck and wrists and a washable hat, elbow length PVC gloves, a disposal mist mask covering mouth and nose and goggles and impervious footwear. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles and contaminated clothing.

CLEAN-UP & SAFETY

- Caution must be taken as treated surfaces may be slippery until product has completely penetrated the concrete.
- For OH&S purposes, it is advised to wear goggles, gloves, a dust/mist mask, long sleeves and trousers together with required safety boots and vest.
- Attention should be given to personal items such as glasses and watches, as DEFLECTA ANTIMICROBIAL® can etch or discolour them. If affected by overspray wash immediately with water.
- Clean equipment using water and mild soap. Never store spray equipment without cleaning and following manufacturer's recommendations for storage in between usage.

WARRANTY

Deflecta Crete Seals warrants this product against manufacturing defects and guarantees it to be manufactured to the current Technical Data Sheet and Specification. Once the product is fully cured it will perform as stated herewith.

The Technical Data Sheet information presented herein and the current Specification is subject to change without notice. All references to DEFLECTA ANTIMICROBIAL® are correct at the time of publication. Deflecta Crete Seals is not responsible for incorrect assessment of this document by others, or incorrect application of product.

At the site the applicator must test the concretes suitability for application.

Deflecta requests that the Contractors/Builders/Owner must prepare a sample of each of the nominated (system) products. The samples must reflect and comply with the current specification and any product data information of all product requirements. The Contractor/Builder/Owner shall witness and approve all required stages of the sample process and agree that all products are suitable for the project works.

The prepared samples must be approved by the relevant parties prior to the commencement of application and if there is any doubt that the product is not suitable for the purpose, do not commence any works and advise the Manufacturer.

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WARRANTY cont.

- 10 years guarantee for moisture protection
- 5 years guarantee for bacterial control

If concrete is over 10 years and requiring a moisture treatment, please contact manufacturer prior to application of Deflecta products

Disclaimer: MEMBRANE requirement in accordance with National Construction Code of Australia – NCC (formerly BCA – Building Code of Australia):

This warranty is null and void if the constructor, concreter or any applicable 3rd party involved with the installation of the concrete columns; wall and subfloor, does not correctly install polythene or similar waterproof membrane, fitted and tanked in accordance with NCC guidelines – ensuring moisture pressure does not exceed 20m (concrete minimum 32 mPA floor slabs)

This warranty is null and void if at any time within the warranty period the localized (site) water table rises to within 1500mm of the fitted concrete sub-floor, walls and columns.

Under the Australian Standard AS 1884-2012 (Floor Coverings-Resilient sheet and Tiles-Installation practices), DEFLECTA ANTIMICROBIAL[®] under Appendix A is classified as a Penetrative Moisture Suppressant and is tested under ASTM F2420-05 and will suppress moisture from rising within the slab. If testing figures are greater than RH 75% and/or pH10, the manufacturer should be contacted for further advice.

JURISDICTION

Is within the State of Victoria relating to Conditional Product Warranty.

TRAINING

Deflecta Crete Seals conducts training on both product and application methods for DEFLECTA ANTIMICROBIAL[®]. This maybe at our office/on site or as required. As it is a registered government product, Deflecta Crete Seals is required to provide audited information to the APVMA Authority.

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