

Altra~Shield[™] WB-V

Waterborne Gloss Epoxy PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type | Waterborne gloss epoxy

A two-pack low VOC, waterborne epoxy gloss finish. The cured film is non-yellowing with high surface hardness and excellent flexibility. It exhibits excellent adhesion and water resistance and is tolerant of application over damp surfaces. It has excellent solvent resistance which makes it very resistant to graffiti. Self-priming over concrete, plaster, and fibre cement substrates.

Description

Recommended for interior use or in-service conditions not directly exposed to extended periods of sunlight.

The low VOC and exceptionally low odour makes it an ideal coating for food process areas, hygiene areas and laboratories.

- Brushing and rolling properties are similar to single pack waterborne paints
- Moisture tolerant application over damp surfaces
- · Quick tack-free and recoat time giving the potential for multiple coats to be applied in a single day
- High surface hardness with excellent resistance to abrasion

Features

- Excellent resistance to chemicals, solvents, and water
- Tenaciously adheres to a wide range of surfaces
- Can be steamed clean or power-washed
- The chemical resistance is similar to conventional solvent borne epoxies
- Available in pastel tone colours
- Approved for use in food & dairy processing plants (refer to "Approvals NZ/AU" section)

Colour

White.

Can be tinted to a range of pastel tone colours

Finish Gloss

Primer

Self-priming on cementitious substrates.

For steel, apply over Carboguard 504, 635, 636 XT, or Altra~Zinc 605.

120-150 microns (total)

Dry Film Thickness

Applied in multiple coats - 40-50 microns per coat

90-113 microns wet to obtain 40-50 microns dry

Solids Content | By volume 44% +/- 1%

Theoretical Coverage Rate

11 m²/L at 40 microns 8.8 m²/L at 50 microns

Allow for loss in mixing and application.

VOC Values | As Supplied : 66 g/L

Dry Temp Resistance | 80°C

Topcoats Not normally required

- · Not suitable for below waterline / immersion service
- Recommended for interior use; will chalk when continuously exposed to sunlight.
- Application not recommended at temperatures below 10°C or above a R.H of 85%

Limitations

- Will discolour when exposed to hypochlorite (beach containing) solutions
- Mixed product will remain liquid well past usable pot life. Do not apply mixed product beyond stated pot life for a given temperature.
- · Do not apply over existing thermoplastic paints

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PERFORMANCE DATA

- · Very good abrasion resistance
- Excellent solvent and alkali resistance (when fully cured)
- · Fair resistance to acids
- Resistant to common CIP chemicals & typical dairy processing by-product exposures as follows:

Performance Data

Nitric Acid 5%	15-hour watch-glass - pass*
Sodium Hydroxide 5%	26-hour watch-glass - pass*
Lactic Acid 5%	26-hour watch-glass - pass*

^{*} Discolouration or temporary film softening may occur; these phenomena do not necessarily indicate coating failure.

SUBSTRATES & SURFACE PREPARATION

General

All surfaces must be sound and free of oil, grease, dirt, loose and flaking paint, moisture, and other foreign substances prior to application of Altra~Shield WB-V.

Clean and/or degrease with either a suitable non-ionic detergent (such as Altex P40 Cleaner), or solvent wipe with Altex C50 Surface Cleaner prior to abrading or sandblasting.

For optimum results, abrasive blast to near white metal equivalent to SSPC-SP 10 (AS 1627.4, Sa 2½), then prime with Carboguard 504 at 50 microns DFT, or Carboguard 635 or 636 XT at 125 microns DFT. Where increased atmospheric corrosion protection is required prime with Altra~Zinc 605 or Carbozine 858

Steel

Satisfactory results will be achieved by abrasive blasting to SSPC-SP 6. (AS 1627.4 Sa 2). For smaller areas, power tool cleaning to SSPC-SP 3 (AS 1627.2 St 3) will provide an acceptable surface for coating.

Allow new concrete to cure for a minimum of 28 days before painting. Concrete floors must be profiled by captive blasting, light abrasive blasting, diamond grinding, or acid etching. Prepared surface must have a uniform surface texture exposing the aggregate resembling 180 grit sandpaper. If this is not achieved repeat profiling method until the required surface texture is achieved.

Concrete

Concrete must have the required profile and be free from oil, grease, dirt, and form oils/release agents. Concrete surfaces cured with curing compounds must be prepared by diamond grinding, captive blasting, or light abrasive blasting.

Acid etching is not a suitable method for degreasing as this procedure will not normally remove these compounds/contaminants.

After profiling using one of the above recommended methods, fill holes, voids, etc by application of Carboguard 510 SG waterborne cementitious epoxy. Seal with Altra~Shield WB-V thinned up to 10%.

<u>Note</u>: For flooring or heavy-duty service extended cure of concrete is recommended, preferably to 28-day 20°C / 50% RH equivalent.

Fibre Cement

Clean down to remove all dirt, dust and loose material. Ensure surface is free from oil, grease and mould. Seal with this product thinned 10%. Allow to cure for 24 hours then lightly sand surface to remove raised fibres.

Maintenance Repaints

May be applied as a maintenance coat over aged enamel, two pack epoxy, and polyurethane systems. Consult Technical Services for guidance on surface preparation methods when using this product for maintenance painting. A test patch is always recommended to check adhesion and compatibility.

MIXING & THINNING

Mixing

Stir the two components to obtain a smooth, homogeneous condition using a power stirrer. After mixing the base portion, add the converter slowly with continued agitation.

Allow 15 minutes induction time during winter conditions.

Thinning Thinning may be required. Thin up to 15% with potable water.

Ratio 1:1 by volume (Part A : Part B)

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MIXING & THINNING

3 hours at 21°C, 6 hours at 10°C

Pot Life

Pot Life Limitation: The mixed product will remain liquid well past its usable pot life. Do NOT apply mixed product beyond the stated pot life at a given temperature.

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Spray Applications (general)

Spray application can be used for flooring applications. It can be spray applied to vertical surfaces, but the recommended system dry film thickness cannot be achieved and must not be applied with successive wet on wet passes. Allow individual coats to dry between applications.

A 70% overlap is recommended to achieve a uniform finish.

Graco Ultra® Max II 595 or better

Tip Size: 0.021-0.023"

Airless Spray

Material Hose: 1/4" I.D. min. Manifold Filter Size: 50 mesh

Ultra® is a registered trademark of Graco Inc.

Conventional Spray 2.0mm fluid tip with appropriate air cap.

Brush & Roller

Apply by brush or PAL Hi-Solids roller.

(General)

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C	10°C	10°C	0%
Maximum	32°C	37°C	35°C	85%
Optimum	16-24°C	16-24°C	16-24°C	30-70%

If application takes place outside these conditions then the curing of the products and subsequent adhesion, traffic resistance, and solvent resistance may be seriously affected

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat	Dry to Touch
10°C	7 hours	6 Hours	5 Hours
15°C	5 Hours	5 Hours	4 Hours
21°C	4 Hours	4 Hours	3 Hours

Curing schedule based on 50 microns DFT.

Maximum recoat time: 5 days.

Curing of the applied film with a combination of high humidity (>85%) and low temperature (<15°C) will have a negative impact upon film formation and reduce cross linking. If the required curing mechanism does not occur, then the resulting film will not develop the expected performance and aesthetic properties associated with this product

CLEANUP & SAFETY

Cleanup | Use clean water

Safety For industrial use only: Read and follow all the caution statements on this Product Data Sheet, the product label, and the Safety Data Sheet (SDS) for health and safety information prior to use.

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CLEANUP & SAFETY

Ventilation

It is very important for the safety of the applicator and the proper performance of this product that good ventilation be provided to all portions of the enclosed area. It is equally important to bring into the enclosed area dry fresh air to remove all solvent vapours. Since solvent vapours are heavier than air, ventilation ducts should reach to the lowest portions of the enclosed areas as well as into any structural pockets. Ventilation should be provided throughout the cure period to ensure all the solvents are removed from the coating.

PACKAGING, HANDLING & STORAGE

Part A: 12 months at 24°C

Part B: 12 months at 24°C

Shelf Life

Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers. For products/components exceeding the stated shelf life, contact Technical Services for further advice.

Shipping Weight (Approximate)

1.3 kg per litre 2L – 5.2 kg

Storage Temperature &

Optimum: 15-20°C

Humidity

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Flash Point (Setaflash) No data

Store under cool, dry conditions.

Storage

Avoid large fluctuations between high and low temperatures. Avoid the formation of condensate due to low temperatures.

APPROVALS

Approvals NZ/AU

Food Processing - New Zealand

AsureQuality® assessed for food/beverage industry including dairy factory and dairy farm non-incidental contact (assessment reference number: h3104).

WARRANTY

DISCLAIMER

The information in this datasheet is provided as a guide only and is provided without warranty, implied or otherwise. It is your responsibility to determine the suitability of any information or product for the use contemplated. Conditions of use, application and the substrate are beyond our control so no liability whatsoever (whether as to coverage, performance, injury or otherwise) is accepted for the information contained herein.

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