

## ALPHA PRIME ZNS®

One Component, Water Based, Fully Inorganic Zinc Silicate Metal Primer

### Description

ALPHA PRIME ZNS® is a multi-purpose, high performance, **fully inorganic zinc silicate** water-base metal primer. The system comprises 2 components, a water-base silicate binder and fine zinc powder. ALPHA PRIME ZNS® is easy to use, effective and fast drying; it contains no VOCs and is non-flammable, non-toxic, non-hazardous to the applicator or user. When mixed together, a viscous paste is formed which is easily applied on properly cleaned and prepared metal substrates. The cross-linking and polymerization process during curing of ALPHA PRIME ZNS® brings about a chemical action which yields a hard, ceramic-like zinc-rich protective coating layer which is chemically bonded to the substrate, making the cleaned and prepared metal surface corrosion-resistant, wear and water-resistant.

### Performance Specifications

- 2 Component (Binder and Zinc Powder)
- Heat Resistant to 100 deg C
- Non-Flammable
- Odourless
- Fast Cure-touch dry in 20 minutes
- VOC Compliant/Environment Friendly
- Ease of Application/Installation
- Easily re-coatable
- Extremely high adhesion to ferrous/steel substrates

### Recommended Applications

- Offshore and Marine Structures (Exposed)
- Pipelines (Exposed)
- Repair and Retrofitting projects

### Surface Preparation-Carbon Steel

- Minimum surface standard of SA2.5 required. Grit blasted preferably with Garnet as blasting media
- Power tool all weld seams and ensure weld slag is totally removed. Grind down all sharp edges and burn marks.
- Ensure fresh water wash down, to remove excess salts, and proper drying of surface prior to commencement of coating works.

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### Technical Data

<b>Theoretical Spread Rate</b>	4sqm/litre at 100 microns DFT
<b>Film Thickness</b>	100 microns DFT
<b>Application Temperature</b>	Between 10 deg C and not exceeding 60 deg C
<b>Application Required</b>	1 coat at a DFT of between 75-100 microns
<b>Dry Times</b>	20 min to touch at 28 deg C and 2 hrs to recoat
<b>Curing Time (Max.Hardness)</b>	3 hrs
<b>Pot Life</b>	40 minutes
<b>Viscosity</b>	20--40 cPs (unmixed)

### Mixing

Mix zinc powder into binder solution gradually, with slow stirring, in the ratio required. **Do not add binder to zinc, but zinc powder to binder** Mix ratios should be adjusted to suit workability required, equipment, application technique. For brush application, maintain zinc proportion at under 75% (w/w)

### Application Equipment/Guidelines

For first aid repairs and small areas ideal method will be by rollers or brushes. When large areas are involved an airless spray pump with a minimum turn down ratio of 45:1 is recommended. Pump operating pressure will vary between 80 to 90 psig. Tip sizes will vary between 17 and 19. Ensure surface temperature is always at least 3 deg C above dew point. Ensure surface is free of condensation prior to commencing coating works. Forced ventilation is generally not required.

**Thinning** of product is **strictly prohibited**. Such thinners contain flammable VOCs that undermine the non flammability rating of our product.

Thoroughly flush spray equipment with water immediately after use. Clean all tools immediately after use with water before product cures.

## **ALPHA PRIME ZNS<sup>®</sup>**

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Inorganic Zinc Silicate Metal Primer

### **Packaging and Storage**

Supplied in Tri-Lock Pails either as 20 kg packs or  
5kg repair kits Zinc powder packed separately. If  
stored at 28 deg C in a ventilated warehouse shelf  
life of 2 years can be expected.

Non-flammable, Non-Hazardous, Non-HAZMAT.

**No shipping restriction required.**

### **Colours**

**Metallic Grey** only available colour.

### **Limitations**

- a) **Not suitable for immersion applications of any kind.**
- b) **Not recommended to be used on compromised surfaces**

### **Disclaimer**

Alpha Omega Coatings P/L products are expressly warranted to meet applicable technical and quality specifications. The technical information contained in this bulletin is accurate at the date of issuance but is subject to change without prior notice. No warranty of accuracy is hereby given or implied. The User must review suitability of product and the specifics relating to application before ordering. Alpha Omega Coatings P/L assumes no responsibility for coverage, performance or injuries resulting from handling or use and **LIABILITY, IF ANY, SHALL BE LIMITED TO PRODUCT REPLACEMENT.** Under no circumstances will Alpha Omega Coatings P/L be liable for consequential damages. Alpha Omega Coatings P/L disclaims all other warranties of merchantability and fitness for a particular purpose.

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### **Precautionary Information**

Although **ALPHA PRIME ZNS<sup>®</sup>** is a non-flammable and odourless product it is recommended that all safety precautions and procedures described in OSHA regulations for work in confined spaces be strictly observed. This would include but may not be confined to the following:

- 1) Provide forced ventilation prior to commencement, during and after completion of coating works. Air quality monitoring to be carried out during all stages of work to ensure safe O<sub>2</sub>, H<sub>2</sub>S, CO, SO<sub>2</sub>, and combustible gases levels are maintained.
- 2) Appropriate PPE is issued to all personnel involved in the coating works
- 3) See MSDS for complete precautionary and disposal information

If instructions and warnings cannot be strictly followed, do not use this product

### **\*Special Notes**

#### **DILUTION LEVELS OF PASTE FOR APPLICATION**

- For optimum **ALPHA PRIME ZNS<sup>®</sup>** film formation, dilution levels may need to be adjusted.
- Convention spray – dilution levels with distilled or demin water is maximum 40%
- Airless spray – dilution levels with distilled or demin water is maximum 25%
- Dilution – viscosity of paste mix is adjusted to facilitate application by adding clean water
- Insufficient dilution can cause dry-spray.
- Over dilution can cause zinc powder settlement in spray hose.

Dilution with water can shorten pot life