

ALPHA THERM®

One Component Micro-Ceramic Heat Insulating and Anti Corrosion Coating

Description

ALPHA THERM is a water borne, micro-ceramic coating formulated with high performance synthetic elastomers and advanced materials to provide excellent insulation and corrosion protection. The fully encapsulated Micro-Ceramic spheres in **ALPHA THERM** form inter layers of air voids that dramatically reduce heat transfer and heat retention. The cured membrane is tough, durable, UV resistant and totally seamless. The specially selected synthetic elastomers enable the membrane to move with the substrate during cyclic heating and cooling regimes on exposed steel surfaces. **ALPHA THERM provides both insulation and corrosion protection in one coating system.**

Performance Specifications

- Single Component
- Heat Resistant to 110 deg C
- Non-Flammable
- Odourless
- Surface Tolerant
- VOC Compliant/Environment Friendly
- Ease of Application/Installation
- Easily re-coatable

Recommended Applications

- Exposed areas where thermal insulation is required*
- Steel surfaces prone to thermal stresses.
- Heated surfaces that are prone to oxidation.

Surface Preparation-Carbon Steel

- Minimum surface standard of NACE SP2 required. Surface should be free of old paint, scale and loose rust. Well adhering paint can be overcoated
- 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.

Date of First Issue: 24/10/08

Revised on: 07/06/09

Revision No: 1

Technical Data

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| Theoretical Spread Rate | 2sqm/litre at 150 microns DFT (2 coat system) |
| Film Thickness | 300 microns DFT* |
| Application Temperature | Between 10 deg C and not exceeding 60 deg C |
| Application Required | 3 coats at a total DFT of 450 microns* |
| Dry Times | 2 hr to touch at 28 deg C and 4 hrs to recoat |
| Curing Time (Max.Hardness) | 1 Days |
| Pot Life | Not Applicable |
| Lamda Rating | 0.018W/mK per 0.03cm |

Mixing

Thoroughly mix to a uniform consistency with a power drill for about 5 minutes. Do not open pails until ready to use. Reseal pails when not in use

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 must be provided for at least 24 hrs after coating application to ensure complete curing before ballasting tanks. **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.

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Packaging and Storage

Supplied in Tri-Lock Pails either as 20 kg packs or 5kg repair kits. If stored at 28 deg C in a ventilated warehouse shelf life of 1 year can be expected.

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

No shipping restriction required.

Colours

Standard colours are White and Light Blue. Custom colours are available with a minimum order of 1000 kgs.

Limitations

- a) Not suitable for immersion applications of any kind.
- b) Not recommended as the only fire protection material despite its flame retardant properties.

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 THERM** 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 O₂, H₂S, CO, SO₂, 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

- 1) **ALPHA THERM** can be used on almost all surfaces including metal, concrete, masonry and GRC.
- 2) **DFT** required will vary with level of thermal insulation needed. An average DFT of 300 microns will give a Delta T value of 6 degC