



Thermal Insulation Coating : Winone Thermoshield



WINONE
Product
Technologies

www.winone.in

Product Description

THERMOSHIELD is a Water-based composite consisting of ceramic & silica insulating coating that provides an insulating barrier, protects personnel, and blocks corrosion all in one application. The coating is specifically designed to be a multiple-purpose coating solving painting and insulating issues.

Key FEATURES

- ⊕ Excellent Thermal Insulation at low thickness
 - ⊕ Prevents Corrosion Under Insulation (CUI)
 - ⊕ Provides anti-condensation protection
 - ⊕ Provides inspection ability w/o removal
 - ⊕ Fast cure times
- ⊕ Low VOC Product
 - ⊕ Highest volume solids insulation coating on the market
 - ⊕ Easy application to irregular surfaces
 - ⊕ 2mm thickness will provide a difference of 20 to 30 °C
 - ⊕ 3-4mm thickness will provide a difference of 35-45 °C

Specification DATA

Base	:	Water-based Acrylic Insulation Coating	Average Thickness :	0.5 to 0.7 WFT	
Gloss	:	Flat	Per Coat		
Priming	:	Self-priming over non-ferrous materials (stainless steel & aluminum). Primer required for carbon steel substrates.	Dry Coat Coverage	:	1 sq.mt in 1 liter @ 1 mm DFT
			VOC Content	:	7.6 gm / liter
Top Coats	:	Please consult WPT	Limitation	:	Application should not exceed 180°C
Practical Volume Solids Content	:	78 - 80 %	Storage	:	The Coating should be kept in a warehouse between 25°C and 35°C.

Substrates & SURFACE PROTECTION

Surface Preparation

Surface should be dry and free of foreign matter. Surface preparation can be used to NACE 1-3 (SSPC SP 5- 6) when applicable

Non - Ferrous Surfaces

Thermoshield is a water-based coating, it is important to have a boundary layer of protection to prevent flash rusting. Since this product is self-priming it can be directly applied to the substrate. Make sure the surface is free of any oil, dirt & cleaned of other foreign matter.

Application EQUIPMENTS

Listed below are the general equipment guidelines for the application of this product.

Brush

Recommended for small areas, or small complicated surfaces/ areas.

Spray guns

Airless spray guns can be used with very specific pump pressure, volume, hose, tip size & pressure.

*Consult WPT for specifications to certain application methodology.

Surface temperatures

Surface temperatures for applications should be greater than -10°C or above. Lower surface temperatures will increase dry times

Applications

Ambient & Cold (15 ° - 59 ° C):

For temperatures (surface or ambient - whichever is lower), an initial tack coat is recommended of 10 mils (0.25 mm or 250 microns). This tack coat will help eliminate sag on vertical wall applications. Tack coat should be dry to touch prior to next pass. Typical coat thickness should not exceed 20 - 22 mils (0.5 - 0.55mm) wet. Coating can be reapplied after each coat is thoroughly dry.

Hot (>60 ° C):

Please consult WPT.

Application thickness

Product can be applied in successive coats to increase insulation ability. There are no upper limitations.

Clean up & SAFETY

Cleanup

Equipment may be cleaned with soap & water

Safety

Half-face respirator recommended with ammonia cartridge or better. Eye protection recommended.

Ventilation

Recommended for constricted areas

Caution

This material is not for human consumption safety.

Clothing

Clothing & gloves are recommended.

Coating SPECIFICATION

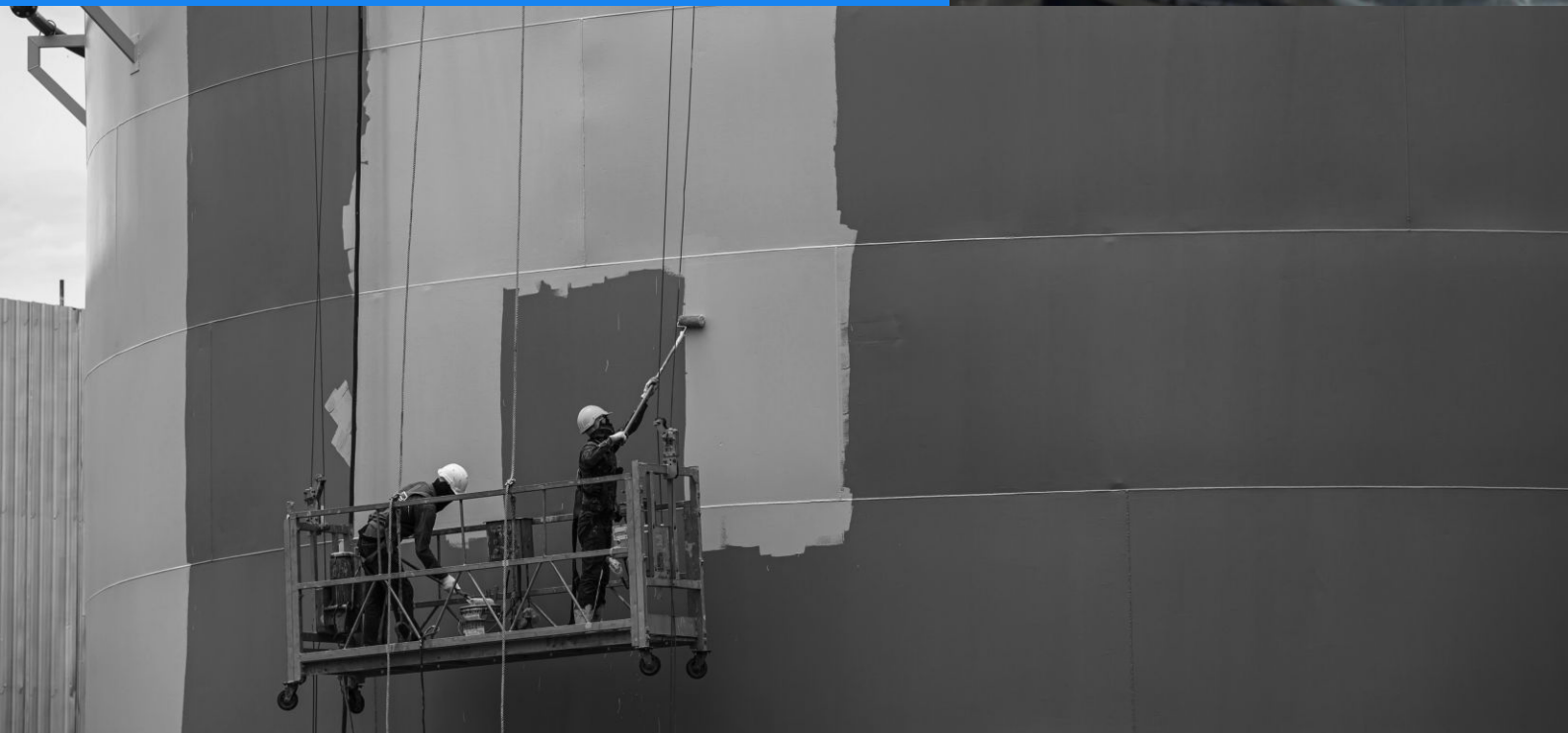
Appearance composition	Suspension white
Surface Appearance	Semi - plain matte film white
Mass fraction of nonvolatile substances in the composition, not less than	at least 50 %
Ratio heat transfer, W/m ² · °C	1.4 +/- 0.7
Ratio thermal conductivity, W/m·°C	0.001 +/- 0.0002
The time to reach incombustibility when complete polymerization of the composition	7 days (168 h)
Resistance to static action water at 20°C for The adhesion of the coating	24 h
Linear elongation, %	at least 1 at least 1
Resistance variable temperature	more than 80
Ratio vapor permeability, Mg/m h PA: - Thermoshield	0.001
Combustibility group	HT (NF)
Group smoke-forming ability	KM0
Group Flammability	A2
Group toxicity combustion products	T2
Drying time for degree 3	5 hours
Coverage dried film	186
UV resistance change in percent after 48 hours of irradiation	0.5 %
Film Strength at impact	30
Film strength at impact	

Solar reflection	83%
The normal ratio radiation corrected	0.91
The ratio of OSL (SRI) for conditions with weak wind	103.56
The ratio of OSL (SRI) for conditions with moderate wind	103.30
The ratio of OSL (SRI) for conditions when the wind is strong	103.01



Mixing & THINNING

- Mixing : Only a mud mixing paddle should be used. Use 1/2" drill motor to stir contents with paddle. Make sure drill is set to reverse to ensure that the paddle will not mar the bucket's inner wall. Please consult WPT for paddle, if needed.
- Coating is one part, so no catalyzation is needed. Pail can be reused if properly sealed. 20 liters
- Thinning : Thinning is normally not needed. Please consult WPT for specific instructions if thinning is desired. (Use water only)



Packaging, HANDLING & STORAGE

- Net Contents : 5, 10 & 20 liters
- Flash Point : Do not subject wet coating in pail form to freezing conditions.
- Storage : The coating should be kept in a warehouse between 25°C and 35°C
- Shelf Life Caution : 12 months shelf life from manufacture date.
- Caution : Do not let product freeze.



Disclaimer

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We focus on solving pain area of the Industry, and make tailor made solutions for absolutely any problems. Contact us to gain advantage of our expertise in Coatings and Performance enhancing Nano-technology.

LEVERAGE OUR EXPERTISE . . .

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