

Technical Data Sheet Zincoat

Product description

Zincoat is a single component solvent borne zinc rich coating that can be used as a primer or as a stand-alone system for atmospheric exposure. Zincoat has 93.7% w/w metallic zinc in the dry film.

Typical use

Zincoat is typically used as a new construction or maintenance coating for the corrosion protection of suitably prepared carbon steel substrates.

Zincoat is also compatible with suitably prepared Hot Dip Galvanised (HDG) steel as a repair / touch up coating to replenish depleted HDG and to replace HDG where damage or welding has destroyed the HDG.

Zincoat can be used for 100% maintenance replenishment of degraded atmospherically exposed HDG to extend the service life of galvanised structures such as communication and power transmission towers, as well as a general maintenance zinc rich coating for HDG and Zinc / Aluminium roofing / cladding.

Zincoat is suitable as a standalone coating or in combination with approved finish coats.

Colour

Zincoat is Grey. The finish is Matt.

Reference to related documents

This Technical Data Sheet (TDS) should be read in conjunction with the Safety Data Sheet (SDS) for this product.

Technical Data

Property - Wet Paint	Test Standard/Result	Notation
Generic Description		Single Component Zinc Rich Coating
Solids	ASTM D2697	80% by weight / 58% by volume +/- 2%
Flash Point	ISO 3679	< 46 °C
Density	ASTM D891-18	2.74 kg/dm ³
Zinc Content	ASTM D6580-17	79% w/w
VOC	D5087-02 (2021)	< 470 g/l

Property - Dry Paint	Test Standard/Result	Notation
Density	D2697-03 (2021)	2.74 kg/dm ³
Zinc Content (Zn+ZnO)	ASTM D521	96.6% w/w
Zinc Content (metal)	ASTM D6580-17	93.7% w/w

Recommended film thickness

Film thickness & spreading rate	Minimum	Typical	Maximum
Dry film thickness	75 μm	125 μm	150 μm
Wet film thickness	129 μm	216 μm	259 μm
Theoretical spreading rate	10.67 m^2/lt	6.4 m^2/lt	5.33 m^2/lt

SURFACE PRE-TREATMENT

Carbon Steel and Galvanised Steel

Inspect the surface for hydrocarbon and other contamination and, if present, remove with an alkaline emulsifiable detergent followed by pressure cleaning.

Surfaces not contaminated with hydrocarbon deposits shall also be washed using fresh water to reduce surface chlorides. Maximum permissible residual chloride content 7 $\mu\text{g}/\text{cm}^2$ when tested to AS 3894.6 Method A.

Paint solvents (thinners) shall not be used for general degreasing or preparation of the surface for painting.

Surface preparation summary table

Substrate	Minimum surface preparation	Recommended surface preparation
Carbon steel	Degreasing / Washing followed by power tool cleaning to SSPC SP11 with the use of an MBX Bristle blaster.	Degreasing / washing followed by abrasive blast cleaning to AS 1627.4 Sa 2½ (ISO 8501-1:2007). Surface profile 30 – 70 μm when measured in accordance with AS3894.5 Method A (replica tape).
Galvanized steel	Degreasing / Washing followed by hand or machine abrasion with non-metallic abrasives to impart an even and uniformly distributed surface profile. Where the underlying carbon steel has been exposed, treat as carbon steel as outlined above.	Degreasing / Washing followed by abrasive whip blasting in accordance with Appendix D of AS 1627.4. Wet abrasive blast cleaning / vapor blasting using abrasive injected / added to the water jet is also an acceptable surface preparation method. Contact Zincoat for recommended machinery / hardware.

Application

Zincoat can be applied by:

Spray: Airless Spray or Conventional Pressure Pot Spray.

Brush/Roller: May be used. Multiple coats may be required to achieve the specified dry film thickness. Apply the first coat by brush to ensure intimate contact with the substrate. Additional coats can be applied by brush or roller to achieve the specified DFT.

Paint Mixing

All coatings shall be mixed with an air powered mechanical paint mixing tool.

- Do not open the coating container until all the surface preparation has been completed and the surface is fully prepared for coating.
- Mix Zincoat with a slow speed mechanical mixer fitted with a flat blade impellor, for sufficient time to ensure that the container contents are fully incorporated into an homogenous mixture.

Thinner/Cleaning Solvent

Zincoat is packaged as a ready to use product. In cool weather conditions or when needing to thin for spray application, the Zincoat thinner and equipment cleaner is ZincaSolv.

Do not add more than 5% Zincasolv by volume.

Environmental Conditions

- Do not apply the coating if the surface is wet or likely to become wet after blasting or before applying any coating in the specified system;
- Do not apply the coating if the surface temperature is less than 3°C above the dew point;
- Do not apply the coating if the surface temperature is less than 5°C;
- Do not apply the coating if the surface temperature is greater than 45°C;
- Do not apply the coating if the relative humidity is greater than 95%;
- Do not apply the coating if the weather is clearly deteriorating or unfavourable for application or curing;
- Do not apply the coating in high wind conditions;
- Do not stand the coating in direct sunlight before or after mixing.

Drying / Curing

Surface temperature at 20 °C	Time
Surface/touch dry @ 75µm	15-45 minutes
Dry to handle	90 minutes
Dry to recoat, minimum	15 minutes
Fully cured	24 hours
Maximum recoat	Indefinite

Recommended product combinations

In general, Zincoat is a two-coat primer / finish system.

In some circumstances, such as for safety marking or aesthetic requirements, a topcoat may be required. Contact Zincoat for specific system recommendation.

Packaging (typical)

Zincoat is supplied in 10 kg (2.74 kg/ltr) paint containers.

Storage

Store in a cool, dry, and well-ventilated location and away from sources of heat and ignition. Storage temperatures should be between 5 and 25 °C.

Zincoat should be stored in accordance with AS 1940 and national / local State and Territory regulations. Keep the containers in a dry, cool, well ventilated space and away from sources of heat and ignition.

Containers must be kept tightly closed. Handle with care.

Shelf life at 25 °C

Unlimited. Regular inversion of stored Zincoat is recommended to aid ready to use status. As settling occurs Zincoat can be agitated in the sealed pail, or if opened reconstituted by slow mixing and the addition of a small amount of Zincasolv, maximum 5% by volume. Do not over-thin.

Service life

Where Zincoat is correctly applied to a properly prepared surface using methodology specifically provided by Zincoat Pty Ltd, Zincoat is warranted to both meet this published technical description and to provide durability comparable to Hot Dipped Galvanising, nominally 30 years in most environments.

Caution

This product is for professional use only. Users shall be trained, experienced and knowledgeable in using specialised equipment to prepare the surface, mix/stir and apply the coating correctly and to the specification.

PPE suitable for paint spray application and solvent handling shall be worn by operators and observers while the product is being mixed and applied.

Health and safety

Flammable liquid and vapour.

Observe all safety notices on the product label and Safety Data Sheet. Use under well ventilated conditions and keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap, and water. Eyes should be well flushed with water and medical attention sought immediately.

Disclaimer

The information in this document is given to the best of our knowledge, based on laboratory testing and practical experience. Coating and paint products are considered as semi-finished goods and, as such, products are often used under conditions beyond our control. Zincoat cannot guarantee anything beyond the quality of the product itself and the reasonably expected durability as described.

The user should refer to the coating specification and direct any questions to Zincoat before using this product.