Protective & Marine Coatings

ZINC CLAD™ 4700
EPOXY ZINC PRIMER

Revised 03/2019 Issue 1

PRODUCT INFORMATION

PRODUCT DESCRIPTION

A 2-pack epoxy zinc primer which complies to the compositional requirements of SSPC Paint 20 Level 3.

RECOMMENDED USES

Anti-corrosive protection of steel surfaces prepared by abrasive blast cleaning, suitable for use in environments up to C5H as part of a system.

RECOMMENDED APPLICATION METHODS

Airless Spray
Brush (for small areas and touch up only)

Thinner / Clean Up: Cleanser/Thinner No. 5

PRODUCT CHARACTERISTICS

Flash Point: Base: 24°C/75°F Additive: 24°C/75°F

Color: Grey

Volume Solids: 61 ± 3% ASTM-D2697-03(2014)

VOC:
311 gms/litre determined practically in accordance with UK Regulations PG6/23
379 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive
159 gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

Mix Ratio: 4 parts base to 1 part additive by volume

RECOMMENDED THICKNESS

	Minimum
Dry microns (mils)	**60** (2.5)
Wet microns (mils)	**98** (4)
Theoretical Coverage m²/L (sq ft/gal)	**10.16*** (400)

** This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment. Film thickness will vary depending on actual use and specification.*

PRACTICAL APPLICATION RATES MICRONS PER COAT (MILS)

	Airless Spray:
Dry:	**60*** (2.5)
Wet:	**98** (4)

* Maximum sag tolerance typically 164µm wet (100µm) (4.0 mils) dry by airless spray.

AVERAGE DRYING TIMES

@ 98 microns (4 mils) **wet:**

	@ 5°C/41°F	**@ 15°C/59°F**	**@ 23°C/74°F**	**@ 35°C/95°F**
To touch:	25 mins	25 mins	20 mins	15 mins
To handle:	16 hours	14 hours	12 hours	10 hour
To recoat	6 hours	5 hours	4 hours	3 hour

For overcoating information, refer to Recommended Topcoats section. Drying time is temperature, humidity, and film thickness dependent.

Pot Life:	10 hours	8 hours	4 hours

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Airless Spray:
Nozzle Size: .....0.38mm (15 thou)
Fan Angle: .....20-30°
Operating Pressure: .....115kg/cm² (1600 psi)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results.

PACKAGE

Shelf Life: 12 months from date of manufacture or 'Use By' date where specified

RECOMMENDED TOPCOAT

Indefinitely overcoatable with epoxy systems provided a minimum of 60 microns (2.5 mils) dft is obtained.

Do not overcoat with paints containing saponifiable resins such as oleo-resinous or alkyd based paints unless a non-saponifiable resin based barrier coat has been applied first.

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ADDITIONAL NOTES

Drying times, curing times and pot life should be considered as a guide only.

The curing reaction of epoxies commences immediately the two components are mixed, and since the reaction is dependent on temperature, the curing time and pot life will be approximately halved by a 10°C/50°F increase in temperature and doubled by a 10°C/50°F decrease in temperature.

Exposure to Weathering
If Zinc Clad 4700 is exposed to the weather, there is a risk of the formation of zinc salts on the surface, which must be removed by flash blasting or washing down prior to overcoating, otherwise intercoat adhesion may be adversely affected.
The rate of zinc salt formation will vary from one location to another. Under severe conditions e.g. marine coastal, offshore or heavy industrial areas, it is strongly recommended that overcoating takes place within 7 days.

Epoxy Coatings - Tropical Use
Epoxy paints at the time of mixing should not exceed a temperature of 35°C/95°F. At this temperature the pot life will be approximately halved. Use of these products outside of the pot life may result in inferior adhesion properties even if the materials appear fit for application. Thinning the mixed product will not alleviate this problem.
The maximum air and substrate temperature for application is 50°C/122°F providing conditions allow satisfactory application and film formation. If the air and substrate temperatures exceed 50°C/122°F and epoxy coatings are applied under these conditions, paint film defects such as dry spray, bubbling and pinholing etc. can occur within the coating.

Numerical values quoted for physical data may vary slightly from batch to batch.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Thinner No.5. Clean tools immediately after use with Thinner No.5. Follow manufacturer's safety recommendations when using any solvent.

SURFACE PREPARATION

Blast clean to Sa2½ BS EN ISO 8501-1:2007 (SSPC-SP10/ NACE2) Average surface profile in the range 50 - 75 microns (2.3 mills).

Ensure surfaces to be coated are clean, dry and free from all surface contamination.

For repair of galvanizing, for small areas, abrade the surface to a minimum standard of St3 BS EN ISO 8501-1:2007 (SSPC-SP3) feathering off the edges of intact galvanizing surrounding such areas, and then brush apply the primer. For large areas it is recommended that the surface is flash blasted.

APPLICATION CONDITIONS

Epoxy paints should preferably be applied at temperatures in excess of 10ºC/50°F. In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature shall be at least 3ºC/37°F above the dew point and always above 0°C/32°F.

At application temperatures below 10°C/50°F, drying and curing times will be significantly extended, and spraying characteristics may be impaired.

Application at ambient air temperatures below 5°C/41°F is not recommended.

ORDERING INFORMATION

Packaging: A two component material supplied in separate containers to be mixed prior to use.

Pack Size: **10 litre** (2.6 gal) and **5 litre** (1.3 gal) units when mixed

Weight: **2.24 kg/litre** (18.69 lb/gal)

HEALTH & SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.
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