



Dimetcote 9

Inorganic Zinc Silicate Coating

Product Data/ Application Instructions

- A heavy-duty primer that protects with just a single coat
- Outstanding application characteristics over a wide range of atmospheric conditions
- Can be applied by airless or conventional spray
- Excellent heavy-build film tolerance in corners and angles
- High-metallic zinc content provides long-term corrosion protection that reduces maintenance costs

Dimetcote 9 is a self-curing, solvent based inorganic zinc coating used as a heavy duty primer with recommended topcoats or as a single coat protective coating in recommended services. To obtain the maximum performance for which Dimetcote 9 is formulated, strict adherence to all application instructions, precautions, conditions and limitations is necessary. If conditions exist that is not within the requirements or limitations described, consult your OAL representative.

Typical Uses

As a single coat, Dimetcote 9 resists severe weathering and marine environments. As a primer with recommended topcoats, Dimetcote 9 is resistant to industrial and chemical exposure as well as marine exposure of structural steel and pipes, tank exteriors, bridges, offshore platforms, marine hulls, superstructures and decks.

Qualifications

SSPC – Paint 20

AISC – Specification for Structural Joints Using ASTM A325 or A490 Bolts
RCSC Specification for Structural Joints
 Table 3 Class B

Recommended Systems

Dimetcote 9 can be topcoated with epoxies vinyls, acrylics, chlorinated rubbers polysiloxanes and other topcoats when used in industrial and marine systems. Typical OAL topcoats are Amercoat 385 or Amerlock 400. In some cases a mist coat/full coat technique may be required to prevent application bubbling

Physical Data

Finish	flat
Colour	grey
Volume solids.....	63 ± 3% (ASTM D2697)
Components.....	2
Mixing ratio (by weight)	
powder	1.92 parts
liquid.....	1 part
Curing mechanism	solvent release and reaction with atmospheric moisture
VOC*	
EC SED 1999/13/EC.....	221 g/kg (526 g/l)
UK PG6/23(92) Appendix 3 .	480 g/l (4.0 lbs/gal)
Dry film thickness	65 µm (2.5 mils) per coat
Number of coats	1
Calculated coverage	9.7 m ² / (397 ft ² /gal at 65 µm (2.5 mils))

Allow for application losses, surface irregularities, etc.

Specific gravity 2.38 kg/l (mixed product)

Temperature resistance, dry ...	°F	°C
Continuous	752	400

Flash points (Closed Cup).....	°C	°F
liquid	13	55
Amercoat 13	12	54
Amercoat 12	24	75

ThinnerAmercoat 13

CleanerAmercoat 12

* VOC figures are quoted according to both the EC directive 1999/13/EC which are theoretically calculated figures and the UK PG6/23(92) Appendix 3 which are practically determined figures

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Resistance

Dimetcote 9 without a topcoat has excellent resistance to weathering and ultraviolet exposure. With suitable topcoats Dimetcote 9 is recommended for fumes and splash of mild alkalis, dilute acids (fumes only), salt solutions of most types. Dimetcote 9 is not recommended for spillage of acid or alkaline solutions.

Surface Preparation

STEEL - Dry abrasive blast in accordance with Swedish Standard Sa 2½ SIS 05 5900 - 1967, ISO 8501-1 or SSPC-SP10.

NOTE: Blast to achieve a 35 to 65 µm profile as determined with *Testex* Tape or similar instrument. Rougher profiles are acceptable but require increased film thickness for equivalent protection. Remove abrasive residues and dust from surface. Apply Dimetcote 9 as soon as possible after surface preparation to prevent any contamination. Do not leave blasted steel uncoated overnight. Spot reblast steel if needed.

Galvanizing – Remove oil, soap film or grease with neutral detergent or emulsion cleaner and blast lightly with fine abrasive to SSPC-SP7.

Application Equipment

The following equipment is listed as a guide and suitable equipment from other manufacturers may be used. Adjustments of pressure and change of tip size may be needed to obtain the proper spray characteristics.

AIRLESS SPRAY - Standard airless spray equipment, such as Graco, DeVilbiss, Nordson-Bede, Spee-Flo or others having a 28:1 or higher pump ratio and a fluid tip with a 0.48 mm (0.019 inch) orifice or larger.

CONVENTIONAL SPRAY - Industrial equipment such as DeVilbiss MBC or JGA gun with 704 or 765 air cap and "E" nozzle with leather or teflon needle packing and heavy mastic spring. Separate air and fluid pressure regulators, variable speed agitator in the pressure pot and a moisture and oil trap in the main air supply line are essential.

MIXER - Use power mixer powered by an air motor or an explosion proof electric motor.

Repair

Rusted areas must be spot blasted in accordance with instructions under *Surface Preparation* before touching up with Dimetcote 9. When blasting is not practical, suitable Amercoat zinc-based primers may be used for repair. See product literature for selection according to topcoat compatibility.

Topcoating

Dimetcote 9 surface must be clean and dry before topcoating. Water soluble contaminants may be washed off with water. Oil, grease and similar contaminants may be removed with an emulsion-type cleaner such as 'Neutral Oil Cleaner'. Rinse with clean water and allow to dry. Solvent wiping is not

Application Data

Substrate steel

Application methods..... airless or conventional spray

Environmental Conditions (during application)

Air temperature -18 to 50°C 0-122°F

Surface temperature -18 to 55°C 0-131°F

Relative Humidity..... 50 % - 90 %

Surface temperature must be at least 3°C/5°F above dew point to prevent moisture condensation on the surface. At freezing temperatures surface must be free of ice.

Never apply coatings under reverse environmental conditions.

Ensure good ventilation when applied in confined areas to assist evaporation and elimination of solvents.

Potlife (at 20°C/68°F)..... 8 hours

Potlife is dependent on temperature and quantities mixed.

Drying times at 20°C/68°F, 65 µm dft and 50-90% RH

dry to touch 5 minutes

dry to handle 30 minutes

dry to topcoat 16 hours (RH 70% or higher)

32 hours (RH 50% minimum)

Drying times are dependent on air and steel temperature, applied film thickness, ventilation and other environmental conditions.

Times are proportionally shorter at higher temperature and longer at lower temperatures. Prior to recoating ensure the surface is clean. Maximum recoating time depends on coating system to be used.

Note – Drying and topcoating times will be longer when film thickness is over 65 microns (2½ mils), ventilation and air movement are restricted, temperatures are lower or relative humidities are lower. A water mist sprayed over the coating when the film is dry to touch will accelerate hardening at lower humidities.

ThinnerAmercoat 13

CleanerAmercoat 12

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satisfactory as contamination may be spread and not removed.
NOTE: a mist coat / full coat may be required when applying a subsequent coat on top of Dimetcote 9 to prevent application bubbling.

Application Procedure

Dimetcote 9 is packaged in the proper mixing proportions of powder and liquid.

Powder 15.60 kg in a 10 l can.

Liquid 8.15 kg in a 10 l jerry can.

1. Flush all equipment with recommended cleaner to remove any moisture that may be present. Moisture can cause hardening of Dimetcote 9 in equipment.

2. Stir liquid.

3. Discard desiccant bag from powder can and gradually stir powder into liquid. Continue stirring until powder is well dispersed and mixture is free of lumps.

4. Strain material through 590 µm (30 mesh) screen to prevent possible clogging of equipment.

5. Since potlife is limited and shortened by high temperatures, do not mix more material than will be used within recommended potlife times.

IMPORTANT At the end of the potlife, 'kick-out' or separation of the liquid and solids occur, together with gassing. Do not keep mixed material which will not be used before the end of the potlife in tightly closed containers as gassing can create enough pressure to cause containers to burst. Cover containers loosely.

6. Keep containers loosely covered until ready to use to prevent skinning or gelling due to moisture in air. Skins should be skimmed off the top and the material strained through cheese-cloth or 60 mesh screen to remove any remaining pieces of skin. Discard gelled material.

7. Thinning is normally not required. If thinning is necessary for workability or when a rough film or "dry spray" is obtained because of fast evaporation during hot weather or high wind, thin with no more than 10 vol % of recommended thinner.

8. Adjust spray equipment to apply to an even wet coat with minimum overspray.

9. Continue slow stirring during application to maintain uniformity of material. Avoid fast stirring as this may cause a rise in material temperature shortening potlife.

10. Apply in even, parallel passes and overlapping each pass 50%. Pay special attention to welds, cut-outs, sharp edges, rivets, bolts, etc. to ensure proper thickness.

11. Check thickness of dry coating with a non-destructive dry film thickness gauge, such as Mikrotest or Elcometer. Recoat if greater thickness is required. Normal recommended thickness is 65 µm and 75 µm for immersion service. Allowable thickness range is 50 to 150 µm, assuming the surface profile is within the recommended range. Greater thickness may develop cracking.

12. Random pinholes, holidays and small damaged or bare areas can be touched up by brush when film is dry to touch. Larger areas should be resprayed.

NOTE: Maximum recoat time with itself is 16 hours. No condensation or rain may be allowed on the surface of the dry coating before recoating.

13. Prevent contact with water until the freshly applied coating is at least dry to touch.

14. In confined areas ventilate with clean air during application and drying until all solvents are removed. Temperature and humidity of ventilating air must be such that moisture condensation will not form on surface.

15. Clean all equipment with recommended cleaner immediately after use or at least at the end of each working day or shift. Clean spray guns more often during hot weather. When left in equipment Dimetcote 9 will harden and plug spray equipment.

Shipping Data

Packaging.....as 10 litre unit
powder 2.2 l (15.60 kg) in 10 l can
liquid 7.8 l (8.15 kg) in 10 l jerrycan

Shipping weight

powder approx. 16.5 kg
liquid approx. 8.7 kg

Shelf life

powder 1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41-104°F)
liquid 1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41-104°F)

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Caution

This product is highly flammable. Dimetcote 9 powder is harmful dust. Contains zinc. Avoid breathing dust. Wash thoroughly before eating or smoking. Keep away from feed or food products. Contact with water liberates highly flammable gases, spontaneously flammable in air. If welding is to be performed in confined spaces on steel coated with Dimetcote 9, do so in accordance with instructions in USA Standard Z 49.1-1973 "Safety in Welding and Cutting".

For specific information on hazardous ingredients, required ventilation, possible consequences of contact and safety measures see Safety Data Sheet

Safety

Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

Warranty

OAL warrants its products to be free from defects in material and workmanship. OAL's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at OAL's option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to OAL in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify OAL of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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To avoid any confusion that may arise through translation into other languages, the English version of the Product Data/Application Instructions will be the governing literature and must be referred to in case of deviations with product literature in other languages.

Condition of Sale

All our transactions are subject to our Terms and Conditions of Sale.

Oasis Ameron Company Ltd

Dammam 2nd Industrial City
P.O.Box 4926 | Al Khobar 31952 Saudi Arabia
Tel: +966 3 812 1300 | Fax : +966 3 812 1128
Email: sales@oasisameronpaints.com
www.oasisameron.com