

AEROCOAT® Zinc Flake

INTERIOR & EXTERIOR

SOLVENT BASED

Description:

An organic bound one component, solvent-based zinc flake barrier + galvanic coating containing 50% lamellar zinc and aluminium particles in the dry film. The flake structure provides superior contact and barrier protection for enhanced long lasting corrosion resistance.

Intended Uses:

AEROCOAT® Zinc Flake is engineered to deliver outstanding long-term corrosion protection through a combination of active and passive protective mechanisms.

In addition to the cathodic protection provided by AEROCOAT® Zinc Flake, the zinc flakes themselves form an excellent barrier against corrosive elements. This dual action is achieved through direct contact between the zinc and steel surfaces, as well as between the zinc particles within the coating.

Thanks to their plate-like structure, zinc flakes provide a much larger surface area compared to traditional spherical zinc dust. This unique morphology allows for a lower concentration of zinc in the coating film while still achieving equivalent—or superior—levels of corrosion resistance. As a result, thinner films can be applied without compromising performance, offering significant efficiency and cost advantages over conventional zinc coatings.

Tested to withstand over 1000 hours of salt spray exposure when applied over an inorganic zinc primer, AEROCOAT® Zinc Flake ensures robust and reliable protection in demanding environments.

Typical applications include structural steel, machinery and equipment, weld seams, heavy-duty repair work & offshore and marine environments.

Features & Benefits:

- Offers excellent barrier protection.
- Excellent flexibility and metallic appearance.
- Can be over-coated by a range of topcoats such as acrylics, epoxies, polyurethanes & vinyls.
- High temperature resistance of 150°C.
- Adheres well to abraded steel and galvanizing and has excellent intercoat adhesion.
- Can be used as a touch-up primer for inorganic primers and can be applied to rusty surfaces.
- Excellent corrosion protection from thinner films.
- Low porosity and permeability.
- Resistance to many “mild” chemicals and solvents including petrol and brake fluids.
- Offers galvanic protection.
- Hydrophobic, weather resistant and spot weldable

Certifications:

Consult a Specialized Coating Systems technical representative for details.

Technical Data:

Product Physical Form	Aerosol
Binder Type	Modified acrylic
Colour	Zinc – brilliant
Appearance	Smooth
Density (approx.)	1.1 Kg/ Litre

AEROSOLS: AEROCOAT®

Whilst we endeavour to ensure that all advice we give about the product is correct, the information given in this data sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so entirely at his own risk. As conditions of use, method of application and suitability of the substrate prior to painting are beyond our control, no guarantee is implied by the recommendations contained herein. We therefore do not accept any liability whatsoever or howsoever arising from the performance of this product or for any loss or damage arising out of the use of this product. The information contained in this sheet is liable to modification from time to time in the light of experience and ongoing product development programmes. It is the user's responsibility to ensure that this sheet is current prior to using the product

Recommended DFT	50µm DFT
Spreading Rate	1.5 – 2 m ² / aerosol @ 50µm DFT, allow for loss factors
Number of Coats	1 – 2
Method of Application	Aerosol spray
Pack Size	400ml (12 x cans per carton)
Storage	Store out of direct sunlight in dry conditions between 15°C and 25°C. Store can with nozzle in dry conditions out of direct sunlight away from sources of heat or ignition.
Shelf Life	2 – 3 years when stored as recommended in original un-opened containers
Temperature Resistance	Dry continuous – 150°C

Important Information:

- This product must be applied direct to metal and hot dip galvanized substrates. The direct contact between the zinc and the metal substrate results in cathodic reaction. Non-zinc primers will compromise this aspect of the performance of AEROCOAT® Zinc Flake.
- Never use primers as they will compromise the performance of AEROCOAT® Zinc Flake.
- Overcoating information is given for guidance only and is subject to local climate and environmental conditions. Consult a Specialized Coating Systems representative for specific recommendations.
- Technical and application data herein is for the purpose of establishing a general guideline of the coating application procedures.
- Test performance results were obtained in a controlled laboratory environment and Specialized Coating Systems makes no claim that the exhibited published test results, or any other tests, accurately represent results found in all field environments. As application, environmental and design factors can vary, due care should be exercised in the selection and verification of the performance and use of the coating.

Surface Preparation:

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be cleaned and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by freshwater rinsing. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

For atmospheric exposure best performance will be achieved when AEROCOAT® Zinc Flake is applied to surfaces prepared to Sa2½ (ISO 8501:2007 or SSPC-SP10; a minimum of Sa2½ (ISO 8501:2007) or SSPC-SP6 must be achieved.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A blast profile of 30 - 50 microns is recommended.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum of St2 (ISO 8501-1:2007) or SSPC-SP2.

Note: All scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically, this would apply to C or D grade rusting in this standard.

Mechanical Preparation - Galvanized Steel Repair

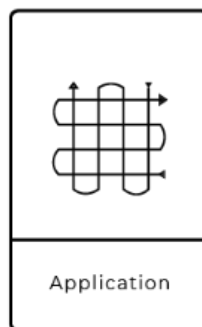
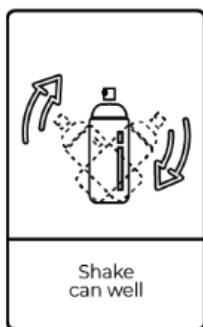
Surfaces must be abraded by a minimum radius of 25mm around the defect using 180# abrasive water paper (or finer) and water as a lubricant, the defect should be exposed to bare metal, but the size should be kept as small as possible.

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Immediately after abrasion wipe the surface clean and apply the premixed repair material within the abraded area. Do not overlap the "patch" onto un-abraded galvanizing.

Application:



Application Environment			
	Surface Temperature	Ambient Temperature	Relative Humidity
Minimum	5°C*	10°C	No lower limit
Maximum	40°C	45°C	85%

* or 3°C above dew point

Drying & Overcoating Information	
Touch Dry	20 min @ 25°C
Overcoating Time	4 hours @ 25°C*
Hard Dry	4 hours @ 25°C
Full Cure	24 hours @ 25°C
Extra Information	* Without abrasion, can be over coated with AEROCOAT® Zinc Flake. 24 Hours should be allowed for other topcoats. Light abrasion using sandpaper is required after 24 hours.

Systems:

Can be applied direct to steel & hot dip galvanized steel. Consult a Specialized Coating Systems technical representative for coating systems solutions.

Safety Information:

- Refer to product SDS for health & safety prior to using products.
- Always wear safety clothing / protection. Respirators, eye protection and skin protection.
- Apply in well-ventilated areas.