

ZINCFIX® ZincFlake Zinc-Alu Air Dry

Zinc rich, cathodic protection primer

A one pack, zinc rich cathodic protection primer, contains more than 50% lamellar zinc & aluminium particles in the dry film.

Intended Uses:

ZINCFIX® ZincFlake Zinc-Alu Air Dry is an organic bound zinc rich coating containing more than 50% lamellar zinc and aluminium particles in the dry film. It is applied to clean steel and hot dip galvanized surfaces to form an adherent anti-corrosive coating in excess of 50 microns thick. It is designed to provide excellent long-term corrosion protection due to the combination of active and passive corrosion protection properties.

Apart from the cathodic protection provided by ZINCFIX® ZincFlake Zinc-Alu Air Dry, the zinc flakes offer the additional advantage of excellent barrier protection. Cathodic protection is guaranteed by factors including contact between zinc and steel surfaces and the zinc particles themselves.

Due to the plate like structure, flakes have a larger surface area than spherical zinc dust. This allows for a lower concentration of zinc in the film and has many benefits and coating characteristics that spherical zinc coatings do not offer. A lower film thickness can be applied and will give equivalent corrosion protection to thicker applied conventional coatings.

Over 1000 hours Salt Spray Test resistance applied over an inorganic zinc primer.

Features & Benefits:

- Easy to use one component product that can be brush or spray applied.
- 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.
- Available in aerosols (AEROCOAT® Zinc Flake).
- Excellent corrosion protection.
- 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.

Technical Data:

Colour	Zinc, brilliant
Finish	Smooth
Density (approx.)	1.1 Kg/ Litre
Volume Solids	50%
Typical Film Thickness	50µm DFT
Theoretical Coverage	10 m²/ Litre at 50µm DFT, allow for loss factors
Method of Application	Brush, spray, or aerosol
Flash Point	-
Temperature Resistance	Dry continuous – 150°C
Number of Coats	1 by brush or spray 1 – 2 by aerosol to achieve DFT

Drying Information:

	- 5°C	0°C	10°C	25°C	30°C	40°C
Touch Dry	-	-	-	20 min	-	-
Hard Dry	-	-	-	4 hrs	-	-
Full Cure	-	-	-	24 hrs	-	-
Overcoating Data – See Limitations						
Substrate Temp.	- 5°C	0°C	10°C	25°C	30°C	40°C
Minimum	-	-	-	4 hrs*	-	-
Maximum	-	-	-	24 hrs	-	-

Note: * Without abrasion, can be over coated with ZINCFIX® ZincFlake Zinc-Alu Air Dry. 24 Hours should be allowed for other topcoats. Light abrasion using sandpaper is required after 24 hours.

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 ZINCFIX® ZincFlake Zinc-Alu Air Dry 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. 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:

Mixing	Material is supplied in steel containers. This is a one component product and does not require a hardener. Agitate/stir the product well before use to ensure a homogeneous mix and no settlement of zinc particles. The temperature of the mixed product should preferably be above 8°C. Higher temperatures result in reduced sag resistance and faster cure.
Pot Life	No limitation.
Brush	Recommended

INDUSTRIAL PROTECTIVE COATINGS: PRIMERS

Thinner	Not required for brushing, if spraying add up to 25% Solvent XL.
Cleaner	SA 65 Thinner (For dry paint and equipment)

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 the dew point

Limitations:

- This product should be applied direct to metal and hot dip galvanized substrates. The direct contact between the zinc and the metal substrate results in a cathodic reaction. Non-zinc primers will compromise this aspect of the performance of ZINCFIX® ZincFlake Zinc-Alu Air Dry.
- 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.
- Unmixed material (in closed containers) should be maintained in protected storage in accordance with information given in the STORAGE section of this data sheet.
- 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.

Pack Size:

Tins	1 Litre	5 Litre
Aerosols	400 ml	

Storage:

- Shelf Life: 12 months at 25°C – from date of manufacture (Subject to inspection thereafter).
- Store in dry conditions out of direct sunlight & away from sources of heat or ignition.
- Store at temperatures between 5°C and 35°C.

Safety Information:

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