

Technical Data

Resist 86 AU



Product description

Resist 86 AU is a two-pack, zinc-rich ethyl silicate based coating that complies with the compositional requirements for SSPC Paint 20 level 1 and the zinc pigment complies with the requirements of ASTM D520 Type II. Resist 86 AU complies with AS/NZS 3750.15 - Type 4.

Recommended use

A general purpose, heavy duty, anti-corrosive primer:

1. As the first coat in a multiple layer system.
 2. As a single coating for long term protection of steel exposed to moderately to severely corrosive environment. Resistant to cyclic dry temperatures up to 400°C.
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Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (μm)	50	150	75
Film thickness, wet (μm)	80	240	120
Theoretical spreading rate (m^2/l)	12,6	4,2	8,4

Approvals

1. Australian APAS approved to specification 2908.
 2. Conforms to AS / NZS 3750.15 - Type 4.
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Physical properties

Colour	Grey
Solids (vol %)*	63 ± 2 (Not directly measurable calculated from coverage)
Flash point	15°C ± 2 (Setaflash)
VOC	545 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Flat
Water resistance	Very good
Abrasion resistance	Excellent
Solvent resistance	Excellent
Chemical resistance	Excellent within pH range 6-10
Flexibility	Limited

*Measured according to ISO 3233:1998 (E)

Surface preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Bare steel

Cleanliness: Blast cleaning to Sa 2½ (ISO 8501-1:2007). Roughness: using abrasives suitable to achieve grade Fine to Medium G (30-85 µm, Ry5) (ISO 8503-2)

Other surfaces

The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be min. 5°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Zinc silicate paints in general requires moisture for curing. At low humidity the curing will be improved by gently sprinkling fresh water over the paint film, and/or by artificial humidification of the surrounding atmosphere. The paint must be completely cured before topcoating, otherwise the adhesion of the subsequent coat will be unsatisfactory. Use Methyl ethyl ketone (MEK) test according to ASTM D 4752-87 to verify the curing time before topcoating. Unweathered zinc silicate films are porous and the porosity may vary according to the weather condition during application and the application technique. When overcoating, the air in the pores will escape through the new coat of paint and may cause blisters or pinholes ("popping") in the coat just after application. To avoid this a mist coat/full coat technique is recommended: First apply a thin coat to fill the pores in the zinc silicate film and a few minutes later apply to full specified film thickness. In difficult cases it may be necessary to thin the next coat, or use Penguard Tie Coat 100 as first overcoat.

Application methods

Spray	Use airless spray or conventional spray
Brush	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness. In order to avoid settling of heavy zinc, continuous mechanical stirring during application is recommended.

Application data

Mixing ratio (volume) 7,77:2,24

Mixing Comp. A is a liquid and Comp. B is a dry zinc powder. Consists of 7.77 litres of Comp. A and 16kg/2.24L Resist 86 AU, Comp. B. Pour the zinc powder slowly into the liquid during mechanical mixing. Stir until lump free and pass through a 60 mesh sieve.

Pot life (23°C) 8 hours

Thinner/Cleaner Jotun Thinner No. 4 (fast evaporation)

Guiding data airless spray

Pressure at nozzle 10 MPa (100 kg/cm², 1400 psi)

Nozzle tip 0.46-0.58 mm (0.018-0.023")

Spray angle 30-80°

Filter Check to ensure that filters are clean.

Note *Thinner should be added after mixing components.
Specialised equipment may be used for applying zinc silicates coatings.

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

- * Good ventilation (Outdoor exposure or free circulation of air)
- * Typical film thickness
- * One coat on top of inert substrate

Substrate temperature	5°C	10°C	23°C	40°C
Surface dry	60 min	30 min	15 min	5 min
Through dry	90 min	45 min	30 min	30 min
Cured	72 h	36 h	16 h	12 h
Dry to recoat, minimum ^{1,2}	72 h	36 h	16 h	12 h
Dry to recoat, maximum ³				

1. For application above 30°C, relative humidity must be min. 80% for proper cure of this product.
2. Curing time to be verified by MEK test (ASTM D 4752-87).
3. The surface should be free of zinc salts and other contamination prior to application.

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Resist 86 AU 1 x 75 µm (Dry Film Thickness)
Topcoat with an epoxy or epoxy/urethane or acrylic system.

Other systems may be specified, depending on area of use

Storage

The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed. The component A must be stored below 25°C. The product component B is zinc dust and has no strict limitation's for storage. SHELF LIFE: 6 months at 23°C for Comp. A. , 4 years for comp. B, subject to re-inspection thereafter. Higher temperatures during storage may reduce the shelf life and may lead to gelling in the tin.

Handling

Handle with care. Stir well before use. Continuous stirring during application will prevent the heavy zinc pigment from settling.

Packing size

10.1 litre unit: 7.77 litres Comp. A in a 10 litre container and 16kg/ 2.24 litres Resist 86 AU, Comp. B (zinc powder) in a 10 litre container.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale 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.

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product can be used under conditions beyond our control, we can only guarantee the quality of the product itself. We also reserve the right to change the given data without notice. Minor product variations may be implemented in order to comply with local requirements.

If there is any inconsistency in the text the English (UK) version will prevail.

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