

### FEATURES

**Advantages:**

- Galvanic protection of steel substrates
- Resistant to corrosion undercutting
- Rapid dry to a hard film at low temperatures and high humidity's allows early handling
- High zinc loading - 86% by weight in the dry film
- Good application properties
- Excellent solvent resistance when cured
- Excellent abrasion resistance
- Excellent heat resistance
- Confirms to AS2105 Type 4

**Limitations of Use:**

- Do not topcoat with alkyd coatings
- Not suitable for fresh or salt water immersion

**Performance Data:**

- Salt Spray Resistance (ASTM B117 1000 Hours) – Excellent
- Humidity Resistance (ASTM D2247) – Excellent
- Adhesion (ASTM D4541) 30 day cure – Excellent

### RECOMMENDED USES

Zinc Silicate 8641 may be used as a single coat protection for steel structures in weathering exposures and as a base coat for topcoat systems in more severe exposures.

However, Zinc Silicate 8641, like Galvanising, should not be directly exposed to environments where Ph is outside of the range 6 to 10.

**Zinc Silicate 8641 may also be used in the following areas:**

- Friction Grip Bolting - Zinc Silicates 8641's low slip factor of 0.437 makes it suitable for application to faying surfaces of high strength friction grip joints
- In place of Galvanising in general atmospheric exposures
- For immersion service in most hydrocarbon solvents and some chemicals - refer Altex Coatings for specific recommendations

**Approvals:**

- APAS 2908 Green - ID3307; Grey - ID3308
- Tested as suitable for coating faying surfaces for High Strength Friction Grip (HSFG) bolted joints
- Confirms to the composition and performance requirements of:
  - AS/NZS 3750.15: Type 4
  - SSPC Paint Spec. 20; Type 1-C
  - AS 4848.1:2006 - Single Coat Inorganic Zinc Silicate (solvent-borne)

### SPECIFICATION DATA

<b>Coating Type:</b>	Solvent Based Ethyl Silicate
<b>Colour:</b>	Grey (Batch lots only)
<b>Packaging:</b>	20 litre
<b>Mix Ratio:</b>	Full kit
<b>Gloss:</b>	Flat
<b>Flash Point:</b>	27 °C Setaflash
<b>Thinner:</b>	8641 Thinner
<b>Pot Life:</b>	8 hours at 25 °C
<b>Induction Time:</b>	n/a
<b>Shelf Life:</b>	6 months from date of manufacture (liquid only)
<b>Storage:</b>	Store under cool dry conditions

<b>Density:</b>	
<b>VOC:</b>	570 g per litre
<b>Temperature Resistance:</b>	400 °C dry
<b>Volume solids (mixed):</b>	60 %
<b>Theoretical Coverage Rate:</b>	8.0 sq. metres per litre at 75 microns dry
<b>Recommended Film Thickness Per Coat:</b>	83-133 microns wet to obtain 50-80 microns dry
<b>Application:</b>	Conventional or Airless Spray
<b>Dry Times (75µm DFT / 50% RH):</b>	
<b>Touch dry:</b>	5 minutes
<b>To handle:</b>	15 minutes
<b>Recoat – minimum:</b>	<b>5°C      10°C      25°C      30°C</b>
<b>Chem~Bar</b>	72 hrs    48 hrs    24 hrs    16 hrs
<b>Epoxy</b>	72 hrs    48 hrs    24 hrs    16 hrs
<b>Urethane</b>	72 hrs    48 hrs    24 hrs    16 hrs
<b>Recoat – maximum:</b>	<b>5°C      10°C      25°C      30°C</b>
<b>Chem~Bar</b>	n/a      n/a      n/a      n/a
<b>Epoxy</b>	n/a      n/a      n/a      n/a
<b>Urethane</b>	n/a      n/a      n/a      n/a

Note: This product is moisture curing. Cure times will vary with humidity.

## SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Oil or grease should be removed in accordance with AS1627.1 solvent cleaning. Surface defects revealed by the preparation process, should be ground, filled, or treated in the appropriate manner. Clean to remove all grit dust and debris and ensure the surface is dry.

### Steel Surfaces:

Abrasive blast to AS1627.4 Class 2 ½ to achieve a uniform blast profile between 38 to 63 microns and be of a jagged nature as opposed to a peen pattern. A lesser degree of cleaning will reduce the service life of the coating. Apply primer coat to the cleaned surface to prevent re-rusting or contamination.

### Previously Painted Surfaces:

Clean with Altex P40 Cleaner. Remove all unsound coatings. Prepare all corroded and damaged paint areas in accordance with the preparation required for the applicable primer. Feather back edges to a sound clean existing coating. Matt all existing coating to provide a fine matt finish. Clean to remove all grit dust and debris and ensure the surface is dry. Apply a test patch to confirm compatibility with existing coating system. If lifting occurs remove to bare substrate.

## DIRECTIONS FOR USE

### Mixing:

Zinc Silicate 8641 is a two component product supplied in 20 litre kits, which contain the correct ratio of ingredients. The entire contents of each container must be mixed together. The powder portion should be added to the liquid component slowly while stirring with a slow speed mixer. After all the powder has been added, mix well at a higher speed. Always filter through a 30 to 60 mesh screen before spraying to ensure removal of heavy zinc powder agglomerates.

### Thinning:

Under normal conditions thinning with 5-10% 8641 Thinner is required. Add thinner to the mixed material.

### Clean-up:

Use 8641 thinner

### Topcoating:

Ideally a tie coat such as Altra-Lock® 577 should be used over Zinc Silicate 8641 to prevent bubbling of topcoats. If no tie coat is used a cross-pass spray pattern must be used with a mist pass first. A thinned version of the topcoat may also be used in place of the mist pass technique. However, thinned topcoats must be allowed to dry prior to applying additional products to achieve specified film thickness.

### Application:

Zinc Silicate 8641 can be applied by either conventional air spray or airless spray equipment. The use of power agitated pots is recommended during application of Zinc Silicate 8641. Fluid hoses should not be longer than 15 metres to obtain the optimum results. The power agitated pot must be kept level or above the spray gun.

Note: Excessive film build may cause mudcracking.

Suggested spray equipment is:

Air Spray	Graco - Delta Air spray gun, 2.8mm (0.110") set up
	De Vilbiss - JGA 502 or 510 gun, E Needle and Tip, 704 Air Cap

Note: Other equipment equivalent to the above may be used.

Care should be taken to ensure that the correct film thickness is applied. Inorganic zinc coatings hide at very low film builds. Rough or pitted steel requires higher dry film thicknesses for optimum protection.

## PRECAUTIONS

For industrial use only.  
See the Altex Coatings Limited General Safety Data Sheet, product label and Material Safety Data Sheet (MSDS) for health and safety information prior to use.

**Zinc Silicate 8641** is flammable. Keep away from heat, sparks and open flame. Use with adequate ventilation.  
May cause eye and skin irritation.  
Do not breathe vapour or spray.  
Wear suitable protective clothing such as gloves and eye and face protection.

## ALTEX COATINGS LIMITED

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