

### FEATURES

#### Advantages:

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

#### 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

#### Approvals:

- APAS 2908 Green - ID3307; Grey - ID3308
- Tested as suitable for coating faying surfaces for High Strength Friction Grip (HSFG) bolted joints
- Conforms 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)

### 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
- As a single coat anti-corrosive coating for structural steel when applied as defined and described in AS 4848.1:2006

### SPECIFICATION DATA

<b>Coating Type:</b>	Solvent Based Ethyl Silicate
<b>Colour:</b>	Green ( <i>Standard</i> ) and Grey ( <i>Batch lots only</i> )
<b>Packaging:</b>	5 litre two component kits containing powdered zinc and liquid component in correct mixing ratio
<b>Gloss:</b>	Flat
<b>Flash Point:</b>	27°C
<b>Thinner:</b>	8641 Thinner
<b>Pot Life:</b>	8 hours at 25°C
<b>Shelf Life: (Liquid only)</b>	6 months from date of manufacture
<b>Storage:</b>	Store under cool, dry conditions

<b>VOC (EPA 24):</b>	570 grams per mixed litre
<b>Temperature Resistance:</b>	400°C Dry
<b>Volume Solids (Mixed) - Void Method:</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
<u>or to comply with AS 4848.1:2006:-</u>	
	166-208 microns wet to obtain 100-125 microns dry
<b>Application:</b>	Conventional or Airless Spray
<b>Dry Times (25°C / 75 µm DFT / 50% RH):</b>	
	Touch Dry 30 minutes
	To Recoat 24 hours minimum

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

## SURFACE PREPARATION

All surfaces must be free of oil, grease, moisture and other foreign matter. Round off welds and sharp edges and remove weld splatter.

### New Steel Surfaces:

Abrasive blast to near white metal, equivalent to AS 1627.4 Class 2½ (SSPC SP10). The steel profile after blasting should be 30 to 50 microns in depth and ideally be of a jagged nature as opposed to a peen pattern. After blasting, vacuum or blow off all grit and dust and ensure the surface remains clean before painting.

### Previously Painted Surfaces:

Remove old paint to bare metal. Prepare surface as for new steel. Achieve a minimum of AS 1627.4 Class 2½ on rough or pitted steel.

## DIRECTIONS FOR USE

### Mixing:

Zinc Silicate 8641 is a two component product supplied in 5 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 5-15% 8641 Thinner is required. Add thinner to the mixed material.

### Application:

Zinc Silicate 8641 can be applied by either conventional air spray or airless spray equipment.

The use of an agitated pot is strongly recommended when applying Zinc Silicate 8641.

Suggested spray equipment is (or equivalent):

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

Care should be taken to ensure the following:

- Maximum hose length - 15 metres
- Keep pots level or above gun
- If spray gun stops for more than 10 minutes, blow material from hose back into pot.
- When applying, hold gun 200-300 mm from the surface and at right angles to the surface. Use 50% overlap with each pass of the gun. On irregular surfaces, coat the edges first, making an extra pass later
- Use lowest possible air line pressure, sufficient to achieve adequate atomisation

Note: Excessive film build may cause mudcracking.

### Topcoating:

Ideally a tie coat such as Carboguard® 1340 or Altra-Lock 576 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.

### Clean-up:

Use 8641 thinner

## 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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