

Approvals and conformities

NASA

MSFC-PROC-547 Rev E

Aeroglaze 9929 is a two-component epoxy primer that is designed for use on aluminum and steel surfaces for applications that require protection against corrosion. Aeroglaze 9929 contains hexavalent chromium.

Features & Benefits

- **Maximum Adhesion:** provides maximum adhesion between certain substrates and Aeroglaze topcoats.
- **Chemical and Environmental Durability:** provides excellent chemical resistance and corrosion protection.
- **Low Outgassing:** provides low outgassing for space applications.

DIRECTIONS FOR USE

Surface Preparation

For maximum adhesion, thoroughly clean the substrate prior to primer application to remove all dirt, oil, grease, and oxides. Different substrates require specific surface preparation methods as listed below. For substrates not listed, please contact your Socomore representative for an appropriate recommendation.

Ferrous Substrates

Remove all grease and oil contaminants by wiping with a suitable solvent. Remove all weld splatter and prepare weld seams, rivet heads, and joints if applicable. Blast clean the substrate using a dry, quality blast media to obtain a 51-76 micron (2-3 mil) blast profile. Blast cleaning must remove all mill scale, rust, and old paint. Remove all blast material and dust from the prepared surfaces by brushing, filtered air blow-off, or vacuuming prior to primer application. Apply Aeroglaze 9929 primer to blast-cleaned surfaces immediately after the surface has been prepared. Blushing or flash rusting will occur very quickly if the prepared surface is left exposed to humid air.

Non-Ferrous Substrates

Except for stainless steel and titanium, most non-ferrous substrates such as aluminum, some alloys, and galvanized steel are too soft to blast clean. Prepare these substrates by either priming with an Aeroglaze wash primer or treating with a chemical conversion coat.

Mixing

Thoroughly mix Aeroglaze 9929A prior to combining with Aeroglaze 9929B. Stir Aeroglaze 9929A while adding Aeroglaze 9929B and mix to a uniform consistency. The mix ratio is 3.5 parts Aeroglaze 9929A

to 1 part Aeroglaze 9929B by volume. Allow the mixed primer to stand for a 15-30 minute induction period before using. Stir the primer again just prior to use as the material will settle. Dilute up to 15% by volume with Aeroglaze 9953 thinner. Slowly add the thinner while stirring the mixed primer. After thinned and uniformly mixed, use the primer immediately. The pot life of Aeroglaze 9929 primer is 4 hours at 25°C (77°F). The pot life is shortened as the temperature increases. To reduce waste, mix only the amount of primer to be used in a 4-hour period.

Application

Aeroglaze 9929 primer is best applied when the substrate and ambient temperatures are above 10°C (50°F), and the substrate temperature is a minimum of 2.8°C (5°F) above the dew point. Apply primer by spray using HVLP spray equipment. Hold the gun at right angles to the surface, approximately 20.3-30.5 cm (8-12 in) away, and apply in even, parallel passes with a 50% overlap between each pass. The approximate coverage rate is 4.9-19.6 m²/L (200-799 ft²/gal).

The recommended dry film thickness depends on the substrate being primed. For chemically-treated aluminum, Aeroglaze 9929 primer should be applied at a dry film thickness of 19.1-25.4 micron (0.75-1.0 mil). For blasted steel, Aeroglaze 9929 primer should be applied at a dry film thickness of 75-100 micron (3-4 mil).

Drying/Curing

The cure rate is dependent on the film thickness, temperature, relative humidity, and amount of air circulation needed to remove the solvent. When cured at 25°C (77°F), a 25.4 micron (1 mil) dry film thickness is typically tack free in 2-4 hours; a 101.6 micron (4 mil) dry film thickness is typically tack free in 7-9 hours.

Aeroglaze 9929 primer may be topcoated after the primer is tack-free, but within 18 hours after application. Curing at elevated temperatures can greatly reduce the recoat window. Baking is not recommended.

If the maximum recoat time (18 hours) is exceeded, the surface must be roughened by sanding with fine to medium grit sandpaper. Remove the sanding dust and solvent wipe with Aeroglaze 9953 thinner. For optimum adhesion, apply an additional 25.4 micron (1 mil) coat of Aeroglaze 9929 primer by HVLP spray and cure for 2-18 hours before topcoating with Aeroglaze polyurethane coatings. The operating temperature of Aeroglaze 9929 is -155 to 120°C (-250 to 250°F).

Clean-Up

Use Aeroglaze 9953 thinner to thoroughly clean spray equipment immediately after use.

Prior to applying an Aeroglaze polyurethane midcoat or topcoat, thoroughly flush spray equipment with Aeroglaze 9958 thinner to remove any residual Aeroglaze 9953 thinner. Aeroglaze 9953 thinner is not compatible with Aeroglaze polyurethane midcoats and topcoats.

TECHNICAL CHARACTERISTICS

Typical Properties*

| | Aeroglaze 9929A | Aeroglaze 9929B | Mixed |
|----------------------------------------------------------------|-----------------|--------------------|--------|
| Appearance | Yellow Liquid | Clear Amber Liquid | Yellow |
| Viscosity, cps @ 25°C (77°F) ASTM D 2196-86, Brookfield LVT | 1000-7000 | 250-750 | 735 |

| | | | |
|----------------------------------------------------------------|-------------------------|---------------------|-------------|
| Density, kg/L (lb/gal) ASTM D 1475-85 | 1.45-1.50 (12.14-12.64) | 0.89-0.96 (7.5-8.0) | 1.35 (11.3) |
| Solids Content by Weight, % ASTM D 2369-87 modified | 67.5-72 | 59.5-64 | 68.6 |
| Flash Point (Seta), °C (°F) ASTM D 3278-82, Closed Cup | 19 (67) | 26 (80) | - |
| Volatile Organic Content (VOC), g/L (lb/gal) ASTM D 3960-87 | 446 (3.71) | 344 (2.87) | 435 (3.63) |
| Dry Film Coating Weight, g/ft ² /mil | - | - | 4.47 |

**Data is typical and not to be used for specification purposes.*

PRECAUTIONS FOR USE AND STORAGE

The shelf life of each component is one year from date of shipment when stored in a dry, well-ventilated area at temperatures between 5-32°C (40-90°F) in the original, unopened container. Do not store or use near heat, sparks, or open flames.

As a general guideline, partial containers of Aeroglaze 9929A and 9929B can be resealed and used again after opening. Upon reopening, inspect each container for any hard settling that cannot be reincorporated. If hard settling is apparent, the products should be disposed. No warranty can be made after the products have been opened.

Before using this or any SOCOMORE product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions. For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Manufactured for SOCOMORE by: Lord Corporation, Saegertown, PA

This technical data sheet replaces and cancels the previous one.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as Socomore deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.