

Aeroglaze® 9744 is a two-part epoxy primer designed for use on aluminum, metal, and prepared composite surfaces. Aeroglaze 9744 primer/tie-coat is applied to scuff-sanded urethane top coats and epoxy primers. It is also used as a tie-coat between scuff-sanded weather worn coatings and new urethane topcoats.

Features & Benefits

- Meets Military Performance Requirements of Mil-P-23377.
- Excellent Chemical and Corrosion Resistance.
- Lead and Chromate-free.
- VOC Compliant (310 gm/liter, 2.6 lb/gal VOC).

Packaging

- **9744A**
 - 1 Quart Container (0.95 Liter)
 - 1 Gallon Container (3.8 Liter)
- **9700B**
 - 1/2 Pint Container (0.24 Liter)
 - 1 Quart Container (0.95 Liter)

DIRECTIONS FOR USE

Surface Preparation

For maximum corrosion protection and long service life, clean and properly prepare all substrates before priming.

Non-Ferrous Substrates

Except for stainless steel, non-ferrous substrates (aluminum, special alloys) are usually too soft to blast clean. Pre-prime with either Aeroglaze 9924, Aeroglaze 9924V, or Aeroglaze 9947 wash primers.

If substrates are not pre-primed with one of these primers, treat with an appropriate aluminum pretreatment as follows:

1. To degrease, use a detergent cleaner such as MilC 4361C. Rinse thoroughly with water.
2. Deoxidize surface using a phosphoric acid solution per Federal Test Standard 141 Method 2013.1, Table 2, or a deoxidizer such as Mil-C-38334. Rinse thoroughly with water.
3. Treat surface with an aluminum pretreatment such as Mil-C-5541/Mil-C-81706. Follow the procedure supplied by the chromate pre-treatment manufacturer.

For special alloys, adhesion tests are recommended to determine if Aeroglaze 9744 primer/tie-coat is a suitable primer. Contact your SOCOMORE Representative for recommendations of other suitable Aeroglaze primers and adhesion promoters.

Ferrous Substrates

To clean a steel surface, blast to a 2-3 mil profile using clean, unused, chloride-free inert blast media. Do not use steel shot. Remove sanding dust before priming. Prime within 4 hours to prevent flash rusting.

Composites

Scuff-sand and remove sanding dust before priming.

Tiecoat Application

When used as a tie coat, Aeroglaze 9744 is an effective primer for providing adhesion of new paint systems to previously painted surfaces. Use Aeroglaze 9744 primer to paint systems where the primer is a MIL P23377 epoxy primer or equivalent and the urethane topcoats are Mil C 85285 or MIL C 83286 class. Paint systems using other topcoats or primers must be tested for compatibility before use.

The key to obtaining optimum results is proper surface preparation. Before applying Aeroglaze 9744 as a tie-coat, proceed as follows:

1. Clean surface to remove dust and dirt contaminates. Remove grease, oils, and fuel residues using a detergent cleaner such as MIL C 4361C.
2. Rinse surface with clean water to remove detergent residue. A clean surface will be water break free. Allow surface to dry.
3. Scuff sand the surface lightly to remove the outer layer of the existing urethane topcoat. Take care not to sand through the topcoat.
4. Remove sanding dust from the surface by rinsing with clean water or use other approved methods for dust removal. Allow surface to dry thoroughly.
5. Bare metal spots must be pre-primed before applying the Aeroglaze 9744 tie-coat. Use Aeroglaze 9744 primer or the primer specified for your application.
6. Mix and apply Aeroglaze 9744 tie-coat in accordance with the following instructions prescribed in this bulletin.
7. Once the Aeroglaze 9744 tie-coat is tack-free, the Mil-C-85285 or Mil-C-83286 topcoat can be applied per the manufacturer's instructions.

Mixing

Aeroglaze 9744 - Volume: 3, Weight:100.00

Aeroglaze 9700B - Volume: 1, Weight: 20.71

Aeroglaze 9744 epoxy primer/tie-coat is packaged in pre-measured kits. Thoroughly mix Part A of the primer before adding Part B. After adding Part B, thoroughly mix; then let the mixed primer stand 30 minutes before using. Stir the primer again just prior to use. Aeroglaze 9744 epoxy primer/tie-coat requires no thinning for application.

Application

Apply Aeroglaze 9744 epoxy primer/tie-coat by spray method using conventional or HVLP equipment. Apply by holding the spray gun at a right angle to the surface, 8 to 12 inches away. Apply with even, parallel passes, with 50 percent overlap.

Apply Aeroglaze 9744 epoxy primer/tie-coat only when the surface and ambient temperatures are above 10°C (50°F), with the surface temperature 2.7°C (5°F) above the dew point.

The typical dry film thickness of Aeroglaze 9744 epoxy primer/tie-coat is 0.6 - 0.9 mils.

Pot Life

Aeroglaze 9744 epoxy primer/tie-coat has a 4-hour pot life at 25°C (77°F). The pot-life is shorter at higher temperatures, and longer at lower temperatures. In order to ease application and reduce waste, only mix the amount of primer to be used in a 4-hour period.

Curing Conditions and Recoat Time

Aeroglaze 9744 epoxy primer/tie-coat may be recoated after the primer is tack-free (5 hours minimum cure at [25°C] 77°F). DO NOT allow Aeroglaze 9744 epoxy primer/tie-coat to cure more than 18 hours before recoating; over-curing will cause adhesion failure of successive coats.

Elevated air temperatures accelerate the cure, thus shortening the recoat time. Lower air temperatures slow the cure, thus lengthening the recoat time. Polyurethane coatings should not be applied to Aeroglaze 9744 primer/tie-coat primed surfaces if temperature is below the dew point.

Note: Do not bake the primed substrate. Baking the primed substrate in attempt to shorten recoat time will cause the maximum recoat time to be exceeded.

If the maximum recoat time is exceeded, the surface must be roughened by sanding with fine to medium grit sand paper. Remove the sanding dust and solvent wipe with Aeroglaze 9958 thinner before topcoating. To achieve the best adhesion, reapply the Aeroglaze 9744 epoxy primer/tie-coat and then topcoat within the recommended time with an Aeroglaze polyurethane coating.

Cleanup

After applying Aeroglaze 9744 epoxy primer/tie-coat, clean application equipment with Aeroglaze 9953 thinner. Flush the primer from hoses, guns and other equipment during lunch breaks, during long down times, and overnight. Mixed Aeroglaze 9744 epoxy primer/ tie-coat that is left in or on equipment will continue to cure, thus making clean-up more difficult.

Before using spray equipment to apply Aeroglaze polyurethanes, flush thoroughly with Aeroglaze 9958 thinner to remove any residual Aeroglaze 9953 thinner. Aeroglaze 9953 thinner is not compatible with Aeroglaze polyurethane coatings.

TECHNICAL CHARACTERISTICS

Typical Properties* of Aeroglaze 9744 Epoxy Primer/Tie-Coat

	Aeroglaze 9744A	Aeroglaze 9700B	Mixed A&B
Color	Dark Gray	Clear Amber	Dark Gray
Solids Content ASTM D 2369-87 modified	76.0% by weight 59.9% by volume	80.3% by weight 77.8% by volume	76.8% by weight 64.4% by volume
Density ASTM D1475-85	1.47 kg/liter 12.2 lb/gallon	0.91 kg/liter 7.6 lb/gallon	1.33 kg/liter 11.0 lb/gallon
Viscosity ASTM D1200 #4 Ford cup @ 25°C (77°F)	31 seconds maximum	61 seconds	40 seconds maximum
Flash Point ASTM D 3278-82 Setaflash, Closed Cup	21.7°C 72°F	26.3°C 95°F	- -
Volatile Organic Content (VOC) ASTM D 3960-89	350.91 gm/liter 2.9 lb/gallon	180 gm/liter 1.50 lb/gallon	308.20 gm/liter 2.57 lb/gallon
Theoretical Coverage ft ² /gallon/mil	NA	NA	1,033
Coating Film Dry Weight	NA	NA	0.0082 lbs/ft ² /mil 3.73gm/ft ² /mil
Shelf Life**	Six months	Six months	-

*Not to be used for specification purposes.

**From date of shipment, unopened container, storage at 70°F-80°F (21°C-27°C).

PRECAUTIONS FOR USE AND STORAGE

Four-hour workable pot life at 25°C (77°F). Mix only enough to be used in a 4-hour period for ease of application and reduced waste. Maximum cure time before topcoating is 18 hours.

Before using this or any other SOCOMORE product refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in residential applications. Not for consumer use.

This technical data sheet replaces and cancels the previous one.

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