AEROGLAZE 9744

NON-CHROMATE EPOXY PRIMER

Technical Data Sheet

Aeroglaze 9744 is a two-component epoxy primer that is designed for use on aluminum, steel, and properly prepared composite surfaces for applications that require protection against corrosion. It is also used as a tie-coat between scuff-sanded weather worn coatings and new urethane topcoats. Aeroglaze 9744 does not contain chromates.

Features & Benefits

- Meets military performance requirements of MIL-PRF-23377 Type I Class N.
- **Chemical and Environmental Durability**: provides excellent chemical resistance and corrosion protection.
- **Environmentally-Preferred**: free of lead and chromates.
- **VOC-Compliant**: has a volatile organic content of only 310 g/L (2.6 lb/gal).

DIRECTIONS FOR USE

Surface Preparation
For maximum adhesion, thoroughly clean the surface 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 surface 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 9744 primer to blast-cleaned surfaces immediately after the surface has been prepared. Blushing or 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 priming with an Aeroglaze wash primer or treating with a chemical conversion coat. Contact your Socomore representative for additional recommendations.

Composites
Scuff sand and clean the surface to remove sanding dust before priming.

Tie-Coat Surface Preparation
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-PRF-23377 epoxy primer or equivalent, and Aeroglaze, Chemglaze, or other urethane topcoats qualified to MIL-C-85285 or MIL-C-83286 class are being applied. Paint systems using other topcoats or primers must be tested for compatibility before use.

Remove obvious signs of grease, oils, and fuel residues by cleaning with a suitable solvent. Abrade the surface lightly with a nylon pad or 250-280 grit sandpaper to remove the outer layer of the existing urethane topcoat. Do not sand through the primer to the substrate. Remove sanding dust from the surface by rinsing with clean water. Thoroughly dry the surface. Reapply the required primer in areas where the substrate is visible prior to applying Aeroglaze 9744 tie-coat. Proceed with application as follows.

Mixing

Thoroughly mix Aeroglaze 9744 part A prior to combining with Aeroglaze 9700 part B. Stir Aeroglaze 9744A while adding Aeroglaze 9700B and mix to a uniform consistency. The mix ratio is 3 parts Aeroglaze 9744A to 1 part Aeroglaze 9700B by volume. Allow the mixed primer to stand for a 30-minute induction period before using. Stir the primer again just prior to use as the material will settle. Aeroglaze 9744 does not require thinning for application. The pot life of Aeroglaze 9744 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 9744 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 25.3 m^2/L (1033 ft^2/gal).

The recommended dry film thickness depends on the substrate being primed. For chemically treated aluminum, Aeroglaze 9744 primer should be applied at a dry film thickness of 15.2-22.9 micron (0.6-0.9 mil). For blasted steel, Aeroglaze 9744 primer should be applied at a dry film thickness of 75-100 micron (3.0-4.0 mil)

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 5 hours; a 101.6 micron (4 mil) dry film thickness is typically tack free in 8-10 hours.

Aeroglaze 9744 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 coat of Aeroglaze 9744 primer by HVLP spray and cure for 2-18 hours before topcoating with Aeroglaze polyurethane coatings. The operating temperature of Aeroglaze 9744 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 only compatible with Aeroglaze epoxy primers and not Aeroglaze polyurethane midcoats and topcoats.

TECHNICAL CHARACTERISTICS

Typical Properties*

	Aeroglaze 9744A	Aeroglaze 9700B	Mixed
Appearance	Dark Gray Liquid	Clear Amber Liquid	Dark Gray
Viscosity ASTM D1200 #4 Ford cup @ 25°C (77°F)	31 seconds maximum	61 seconds	40 seconds maximum
Density kg/L (lb/gal) ASTM D1475-85	1.47 (12.2)	0.91 (7.6)	1.33 (11.0)
Solids Content by Weight, % ASTM D 2369-87 modified	76.0	80.3	76.8
Flash Point (Seta), °C (°F) ASTM D 3278-82 Closed Cup	21.7 (72)	26.3 (95)	-
Volatile Organic Content (VOC) g/L (lb/gal) ASTM D 3960-89	350.91 (2.9)	180 (1.50)	308.20 (2.57)
Coating Film Dry Weight gm/ft^2/mil	-	-	3.73 gm/ft^2/mil
Shelf Life**	Six months	Six months	-

**Not to be used for specification purposes.*
***From date of shipment, unopened container, storage at 5-32°C (40-90°F).*

PRECAUTIONS FOR USE AND STORAGE

The shelf life of each component is six months from date of shipment when stored in a dry, well-ventilated area at temperatures between 5-32ºC (40-90ºF) in the original, unopened containers. Do not store or use near heat, sparks, or open flames.

As a general guideline, partial containers of Aeroglaze 9744A and 9700B can be resealed and used within approximately 14 days after opening. Upon reopening Aeroglaze 9744A, inspect the container for any hard settling that cannot be reincorporated by mixing. If hard settling has occurred, the product should not be used and should be disposed of according to local regulations. 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.