

#### Approvals and conformities

Dept of Navy

MIL-PRF-85322

Aeroglaze® M1433 elastomeric coating is a gray, twocomponent polyurethane coating designed for protecting radomes, antennae and leading edges of aircraft. Aeroglaze M1433 elastomeric coating functions exceptionally well in abrasive environments and is qualified to Military Specification MIL-PRF-85322.

#### Features & Benefits

- **Durable:** provides excellent resistance to abrasion, erosion and impact; flexible over a wide temperature range; conforms to ASTM D-16 Type IV classification.
- **Easy to Apply:** can be applied by pressure pot or HVLP spray equipment; builds thick films easily with one application of multiple coats.
- **MIL-PRF-85322 Compliant:** meets requirements of Military Specification MIL-PRF-85322.
- **Topcoat Compatible:** can be topcoated with a wide variety of aliphatic moisture-cure or two-component polyurethane coatings, including Aeroglaze and Chemglaze® coatings.

### DIRECTIONS FOR USE

#### Surface Preparation

Solvent wipe the composite surface with Aeroglaze 9958 thinner to remove all oil, grease and dirt. Lightly sand the surface using an emery cloth or 320-500 grit sandpaper. Solvent wipe the surface a second time to remove dirt and dust.

#### • Reclaiming a Coated Composite Surface

If wash primer was used prior to coating application, cured coating can be removed by cutting the coating with a sharp blade then covering the area with clean rags that have been soaked in Aeroglaze 9958 thinner or MEK. The solvents will dissolve the wash primer permitting easy removal of the cured coating.

#### Mixing

Mix ratio of Aeroglaze M1433 coating is 3:1, M1433A component to M1433B component by volume. Thoroughly stir Aeroglaze M1433A component before use. While stirring, add Aeroglaze M1433B component. Thoroughly mix the coating until uniform in color and consistency.

*Note: Both Aeroglaze M1433A and M1433B components are sensitive to atmospheric moisture, especially M1433B component. Only open Aeroglaze M1433B component when ready to use.*

#### Application

Apply primer and coatings by pressure pot or HVLP spray equipment. In many instances, a pressure pot spray gun was found to work better than a HVLP spray gun for the elastomeric coating application.

#### • Primer

Apply Aeroglaze 9924, Aeroglaze 9924V or Aeroglaze 9947 wash primer to the substrate surface. For maximum adhesion of Aeroglaze M1433 elastomeric coating to the substrate, the dry film thickness of Aeroglaze wash primer should be 7.6-12.7 micron (0.3-0.5 mil). Allow primer to thoroughly dry before applying elastomeric coating. For further details on the use of Aeroglaze wash primers, refer to the

appropriate data sheet.

- Aeroglaze M1433 Midcoat

Apply Aeroglaze M1433 elastomeric coating at ambient substrate and surface temperature of at least 10°C (50°F), with substrate temperatures at 3°C (5°F) above the dew point. Spray apply coating using multiple passes to obtain a dry film thickness of 203-356 micron (8-14 mil). Feather the elastomeric coating toward the trailing edge. Allow Aeroglaze M1433 elastomeric coating to cure a minimum of 3-4 hours at 23.9°C (75°F) before topcoating.

- Topcoat

Aeroglaze M1433 elastomeric coating is not a cosmetic coating; it will change color and chalk when exposed to UV. Apply an aliphatic urethane topcoat, such as an Aeroglaze or Chemglaze aliphatic moisture-cure or two-component polyurethane coating, or comparable coating.

Topcoat application must be applied before the elastomeric coating has cured for 24 hours. Refer to the appropriate data sheet for details.

### Curing

Cure begins immediately once Aeroglaze M1443A and M1443B components are mixed. Aeroglaze M1433 elastomeric coating cures by reacting with moisture in the air. Cure rate is dependent on the temperature, relative humidity and amount of air circulation needed to remove the solvent.

The applied elastomeric coating must be cured above 10°C (50°F) and 60% relative humidity. If the percent relative humidity drops between 30-40%, moisture should be supplied by steam or water to the curing environment.

Under the acceptable curing conditions, the coating will set to touch in 15-30 minutes, surface dry in 1-2 hours, and dry hard in 4-6 hours. Lower temperatures and humidities will retard cure.

### Cleanup

Use Aeroglaze 9958 thinner or methyl ethyl ketone (MEK) to clean equipment. Clean spray equipment immediately after use since the coating will cure inside guns, filter screens and hoses. Circulate solvent through the hoses for at least 15 minutes to help flush and clean the hoses.

## TECHNICAL CHARACTERISTICS

### Typical Properties\*

|   | M1433A Component                 | M1433B Component                     |
|---|----------------------------------|--------------------------------------|
| Appearance  | Gray Liquid                      | Light Yellow to Deep Burgundy Liquid |
| Viscosity, cps @ 25°C (77°F), ASTM D 2196-86, Brookfield LVT, Spindle 3, 30 rpm | 700-1500                         | water thin                           |
| Density, ASTM D 1475-85   | 1.04-1.05 kg/L (8.65-8.8 lb/gal) | 0.83-0.90 kg/L (6.9-7.53 lb/gal)     |
| Solids Content by Weight, ASTM D 2369-87 modified                               | 70.8-74.8%                       | 24.3%                                |
| Flash Point (Seta), ASTM D 3278-82, Closed Cup                                  | 18°C (66°F)                      | 43°C (110°F)                         |
| Volatile Organic Content (VOC), ASTM D 3960-87                                  | 297.2 g/L (2.48 lb/gal)          | 636 g/L (5.31 lb/gal)                |

### Typical Properties\* of Mixed Coating

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| Mix Ratio, A Component to B Component   | by Volume 3:1, by Weight 3.74:1 |
|---|---------------------------------|
| Mixed Appearance  | Gray                            |
| Viscosity, cps @ 25°C (77°F), ASTM D 2196-86, Brookfield LVT, Spindle 3, 30 rpm | 200-600                         |
| Density, ASTM D 1475-85   | 0.98 kg/L (8.2 lb/gal)          |
| Solids Content by Weight, ASTM D 2369-87 modified                               | 58%                             |
| Volatile Organic Content (VOC), ASTM D 3960-87                                  | 419.4 g/L (3.5 lb/gal)          |
| Working Life @ 23°C (73°F)  | 2 hr                            |
| Dry Film Coating Weight, 0.5 mil thickness                                      | 2.69 gm/ft <sup>2</sup>         |

#### Typical Cured Properties\*

| Property                                    | Value               |
|---|---------------------|
| Hardness, Shore A                           | 95                  |
| Tensile Strength, ASTM D 882-83 Method A    | 34.5 MPa (5000 psi) |
| Elongation at Break, ASTM D 882-83 Method A | 500%                |

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

## PRECAUTIONS FOR USE AND STORAGE

Shelf life is six months from date of shipment when stored in a dry environment at 16-24°C (60-70°F) in original, unopened container. If the storage temperature drops below 10°C (50°F), Aeroglaze M1433B component may crystallize. Allow material to return to recommended storage temperature for two days to remove crystallization before using. Do not mix or use material until crystallization is removed.

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.

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