

Approvals and conformities

Dept of Navy
PRATT & WHITNEY

MIL-PRF-85322
PWA36510

Chemglaze® M331/M201 elastomeric coating is a two-component polyurethane coating designed to produce a tough, flexible film for use in protecting the leading edges of fixed and rotary wing aircraft. This coating accommodates thermal expansion and contraction, and functions exceptionally well to protect the underlying substrates from abrasion, erosion and minor impact damage. Chemglaze M331/M201 coating can also be used as an effective protective coating in the highly abrasive environments of the railroad and mining industries.

Features & Benefits

- **Durable:** provides outstanding resistance to abrasion, erosion and impact; 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.
- **Versatile:** can be used to coat a wide variety of substrates such as metals, concrete, plastics and foams.
- **Primer and topcoat compatible:** provides excellent adhesive properties when used in conjunction with Aeroglaze® epoxy or wash primers, and Aeroglaze and Chemglaze aliphatic moisture-cure or two-component polyurethane coatings.

USES

Coating designed to protect underlying substrates on the leading edges of fixed and rotary wing aircraft from abrasion, erosion and minor impact damage. Can also be used as a protective coating in the highly abrasive environments of the railroad and mining industries.

DIRECTIONS FOR USE

Surface Preparation

Thoroughly clean surfaces to remove all dust, oil and grease. For most substrates, apply primer to ensure proper adhesion and performance of the coating.

Mixing

Mix ratio of coating is 3 parts Chemglaze M331 (Part A) component to 1 part Chemglaze M201 (Part B) component by volume. Thoroughly stir Chemglaze M331 component, making certain to incorporate any material that may have settled at bottom of container. Once Chemglaze M331 component is well mixed,

continue stirring while adding Chemglaze M201 component. Thoroughly mix the two components until uniform in consistency.

Note: Both Chemglaze M331 and M201 components are sensitive to atmospheric moisture, especially M201 component. Only open Chemglaze M201 component when ready to use.

Typical properties of mixed coating

- Mix ratio of M331 component to M201 component by volume: 3:1
- Mixed Appearance: Black
- Solids Content, %: 56 (by weight), 52 (by volume)
- Volatile Organic Content (VOC): 420 g/L (3.5 lb/gal)
- Working Life, hr @ 25°C (77°F): 50% RH: 2

Application

Apply 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.

Chemglaze M331/M201 coating is best applied by airless spray equipment with no thinning required. Thinning is not recommended for high build applications.

For application with HVLP spray equipment, dilute coating with Chemglaze 9951 thinner. Depending on application, the mixed coating can be diluted up to 30% by volume with Chemglaze 9951 thinner.

Chemglaze M331/M201 coating is recommended for medium to high build applications, ranging from a minimum of 356 micron (14 mil) to 762 micron (30 mil) applied in multiple coats.

A second coat of Chemglaze M331/M201 coating or a topcoat of another Chemglaze coating may be applied after the first application has cured a minimum of 4 hours at 15.6°C (60°F). Chemglaze M331/M201 coating can be coated after one day if parts are kept clean. For maximum intercoat adhesion, recoat within 24 hours. Chemglaze M331/M201 coating cannot be applied directly to metals. Metals require the use of a wash primer and/or an epoxy primer to promote adhesion of Chemglaze M331/M201 coating to the substrate. In many cases, Chemglaze M331/M201 coating will adhere directly to properly prepared composites, plastics, foams and other non-metallic substrates. However, a test patch may be required to determine if a primer is required.

Curing

Cure begins immediately once Chemglaze M331 and M201 components are mixed. Chemglaze M331/M201 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 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.

Typical cured properties

- Hardness (Shore A): 95

- Tensile Strength (ASTM D 882-83, Method A), MPa (psi): 34.5 (5000)
- Elongation at Break % (ASTM D 882-83, Method A): 500

Cleanup

Use Chemglaze 9951 thinner to clean equipment. Clean spray equipment immediately after use since the coating will cure inside guns, filter screens and hoses. Once Chemglaze M331/M201 coating cures, it will be more difficult to remove. Circulate solvent through the hoses for at least 15 minutes to help flush and clean the hoses.

TECHNICAL CHARACTERISTICS

Appearance	M331 (Part A): Black Liquid, M201 (Part B): Light Yellow to Deep Burgundy Liquid
Brookfield viscosity	LVT, spindle 4, 30 rpm, cps @ 25°C (77°F): M331 (Part A): 6800 -11,000, M201 (Part B): water thin
Specific gravity	M331 (Part A): 0.98 -1.03 kg/L (8.2 - 8.6 lb/gal), M201 (Part B): 0.83 - 0.90 kg/L (6.9 -7.53 lb/gal)
Solid content	M331 (Part A): 71 -75% by weight, 67% by volume, M201 (Part B): 24.3% by weight, 21.1% by volume
Flash point	Seta. M331 (Part A): 33°C (93°F), M201 (Part B): 43°C (110°F)
VOC (US regulation)	M331 (Part A): 294 g/L (2.45 lb/gal), M201 (Part B): 636 g/L (5.31 lb/gal)

PRECAUTIONS FOR USE AND STORAGE

Shelf life of each component 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), Chemglaze M201 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

CHEMGLAZE® M331/M201_P70004-P70003AG6B Date : 24-05-2017 Written and checked by : PT-FS

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.

CHEMGLAZE@M331/M201_P70004-P70003AG6B Date : 24-05-2017 Written and checked by : PT-FS