

## Approvals and conformities

ADCOLE	A26364
ATK	COMS-0008
BAE SYSTEMS	8357819
BEI	6430006102
BOEING	52841092, BMS10-90, SCGMS56016
CMC Electronics	635907-2
COLLINS AEROSPACE	KBO 125-001, SP275
Cobham	8536-9617
DDES Corp	AM400000-450
Delco Systems	7570403
EDO Corp	55-118
Fairchild	501C7528
GOODRICH	HPA0200C
HONEYWELL	FMC8362-01, P8251333
Harris	2003693, 2011362
ITT, Space Systems	1138681, 400-3093, 561414
Kearfott	Y122A013
L3 Communications	B185239, N500045
L3 Telemetry West	16130052
LOCKHEED MARTIN	STMK794, 1425PD0207, 1854157, LAC-37-4462-001, MAP-CK10787-2000
Loral	020054, LMS 70412
Motorola	11P34023D
NASA	MSFC-PROC-547 Rev E
NORTHROP GRUMMAN	53825EL
REMEC	500470
Raytheon	HMS 2363, HMS15-2135, SM80004
Swales Aerospace	SAI-SPEC-936

TRW	C600191-1
Teledyne Systems	7508031
Yardney Technical Products	YEC-2190

Aeroglaze Z306 is an absorptive, moisture-curing polyurethane coating designed for substrates used in aerospace applications. Aeroglaze Z306 coating cures to a flat black finish.

### Features & Benefits

- **Low Outgassing:** exhibits low outgassing properties in high vacuum environments.
- **Durable:** provides mechanical properties required for rigorous durations in space for both rigid and flexible substrates.
- **High Solar Absorptivity and Emissivity:** provides high solar absorptivity and emissivity to obtain control of thermal and optical properties.

## ***DIRECTIONS FOR USE***

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### Surface Preparation

Thoroughly clean surfaces to remove all dust, oil, and grease. For most substrates, apply a primer to ensure proper adhesion and performance of the coating. Contact your Socomore representative for an appropriate primer recommendation.

### Mixing

Before opening container, thoroughly mix coating for 5 minutes using a paint shaker. Open the lid carefully as the container may be under slight pressure. Stir the coating with a clean paint stick to check for any settled material and ensure mixture is homogeneous. If material has settled, return closed container to the paint shaker and shake for an additional 5 minutes or until no settling is apparent.

### Application

Aeroglaze Z306 coating is best applied at 13-35°C (55-95°F) with substrate temperatures at least 2.8°C (5°F) above the dew point.

### Spraying

Dilute coating with 15-20% Aeroglaze 9958 thinner by volume to a Zahn Cup #2 viscosity of 18-22 seconds. Apply coating by HVLP spray with a 1.4 mm spray tip and a dry air feed with less than 500 ppm moisture. Hold the gun at right angles to the surface approximately 20.3-30.5 cm (8-12 in) away and apply with a 50% overlap between passes.

### Brushing

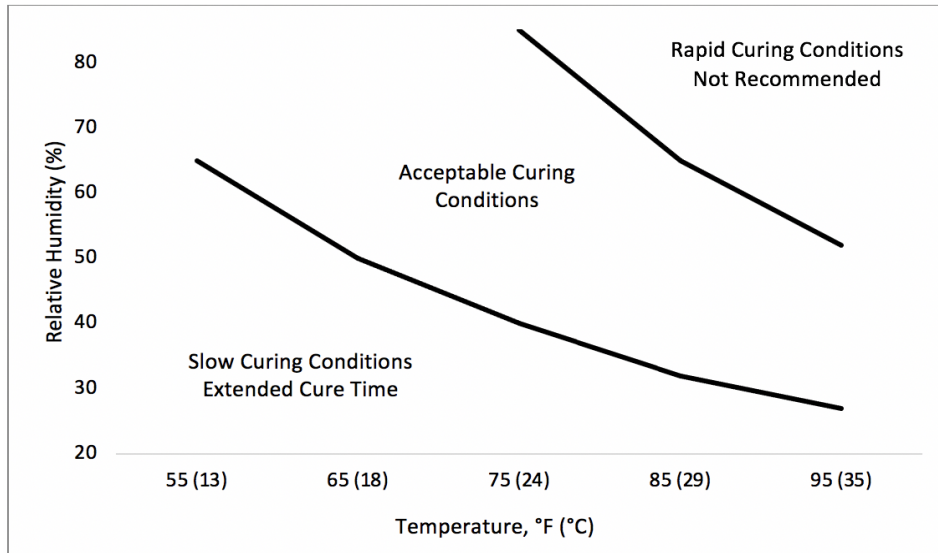
Application by brush is only recommended to touch-up small areas. Add up to 5% by volume of Aeroglaze 9958 thinner to control the application properties.

The optimum dry film thickness of Aeroglaze Z306 is 38-51 micron (1.5-2.0 mil). Apply a maximum of 100 micron (4 mil) wet film thickness per coat as excessively thick coats can cause bubbling and sagging. The coverage rate is approximately 9.3 m<sup>2</sup>/L (368 ft<sup>2</sup>/gal).

### Curing

Aeroglaze Z306 coating cures by reacting with moisture in the air. The cure rate is dependent on the temperature, relative humidity, and amount of air circulation required to remove the solvent.

Under the acceptable curing conditions, the coating will develop its ultimate properties in approximately 7 days. Refer to the psychrometric chart below. Lower temperatures and humidities decrease the rate of cure, while higher temperatures and humidities may cause bubbling.



Aeroglaze Z306 coating cures to a tack-free surface in 2-3 hours at 25°C (77°F) and 50% relative humidity. Room temperature cure times of 12 hours permit handling.

Aeroglaze Z306 coating may be recoated after the first application within 3 hours minimum and 24 hours maximum. Recoat time is dependent on temperature and humidity. High temperature and humidity promote fast cure while low temperature and humidity slow down the cure. In high temperature and high humidity conditions, recoat within 8 hours to prevent intercoat adhesion failure. If the maximum recoat time is exceeded, the surface must be roughened by sanding with fine sandpaper prior to application of an additional coat.

The constant operating temperature of Aeroglaze Z306 is -150 to 104°C (-238 to 220°F), with excursions to 121°C (250°F) permitted for no longer than four hours at a time.

**Clean-Up**

Use Aeroglaze 9958 thinner to clean equipment. Do not use lacquer thinners, water, or solvents containing alcohol.

**TECHNICAL CHARACTERISTICS**

**Typical Properties<sup>1</sup>**

Property	Value
Appearance	Black Liquid
Viscosity, cps @ 25°C (77°F), ASTM D 2196-86, Brookfield LVT	50-250

Density, ASTM D 1475-85	0.92-0.97 g/L (7.7-8.1 lb/gal)
Solids Content by Weight, ASTM D 2369-87 modified	26-29%
Flash Point (Seta), ASTM D 3278-82, Closed Cup	19°C (67°F)
Volatile Organic Content (VOC), ASTM D 3960-87	677 g/L (5.65 lb/gal)
Outgassing <sup>2</sup> , ASTM E 595-77	1.0% TML <sup>3</sup> , 0.02% CVCM <sup>4</sup>
Solar Absorptivity, Gier-Dunkle Integrating Sphere	>0.95
Normal Emissivity	0.90
Gloss at 85°	10 or below

1) Data is typical and not to be used for specification purposes

2) 40-day cure at room temperature

3) Total Mass Loss

4) Collected Volatile Condensable Materials

## **PRECAUTIONS FOR USE AND STORAGE**

The shelf life is one year from date of shipment when stored in the original, unopened container at temperatures between 10-32°C (50-90°F). Store indoors away from heat, sparks, and open flames.

The pot life of Aeroglaze Z306 is two hours at 25°C (77°F) and 50% relative humidity. Lower temperatures and humidities increase the pot life, while higher temperatures and humidities decrease the pot life. To maintain product freshness after the container has been opened, keep container closed as much as possible, nitrogen purge before resealing, and use within 7 days after opening. If the product has built up excessive pressure that causes the can to bulge, has formed a skin on the top of the product, or appears foamy, the product should not be used.

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. Not for immersion service. Do not apply to wet or damp substrates.

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.