POLYURETHANE COATING

Technical Data Sheet - Fiche Technique

Approvals and conformities

LOCKHEED MARTIN STMK794, 1425PD0207, 1854157, LAC-37-4462-001, MAP-

CK10787-2000

 ADCOLE
 A26364

 ATK
 COMS-0008

 BAE SYSTEMS
 8357819

 BEI
 6430006102

BOEING 52841092, BMS10-90, SCGMS56016

 CMC Electronics
 635907-2

 Cobham
 8536-9617

 DDES Corp
 AM400000-450

 Delco Systems
 7570403

 EDO Corp
 55-118

 Fairchild
 501C7528

 GOODRICH
 HPA0200C

 Harris
 2003693, 2011362

 HONEYWELL
 FMC8362-01, P8251333

 ITT, Space Systems
 1138681, 400-3093, 561414

Kearfott Y122A013

L3 Communications B185239, N500045

L3 Telemetry West 16130052

Loral 020054, LMS 70412

Motorola 11P34023D NORTHROP GRUMMAN 53825EL

Raytheon HMS 2363, HMS15-2135, SM80004

REMEC 500470

Rockwell Collins KBO 125-001, SP275

Swales Aerospace SAI-SPEC-936

Teledyne Systems7508031TRWC600191-1Yardney Technical ProductsYEC-2190

Aeroglaze® Z306 coating is an absorptive polyurethane coating designed for application on substrates used in aerospace operations. These operations include those where coatings must exhibit low outgassing characteristics while providing high thermal absorptivity properties. Aeroglaze Z306 coating cures to a flat black finish.

Features & Benefits

- Low Outgassing: exhibits low gassing properties in high vacuum environments.
- **Durable:** provides mechanical properties required for rigorous durations in space; provides excellent performance on rigid or flexible substrates.
- **High Thermal Absorptivity:** provides thermal absorptivity for applications where superior heat absorption is required.

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. Contact your SOCOMORE representative for recommended Aeroglaze primer required for your application.

Mixing

Before opening container, thoroughly mix coating using a paint shaker for 5 minutes. Open the lid carefully as the container may be under slight pressure. Stir 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 an additional 5 minutes or until no settling is apparent.

Dilute coating with 15-20% Aeroglaze 9958 thinner, by volume, to a Zahn Cup #2 viscosity of 18-22 seconds.

Application

Apply coating by HVLP or airless spray equipment. 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.

Apply Aeroglaze Z306 coating at a maximum thickness of 25 dry micron or 100 wet micron (1 dry mil or 4 wet mil) per coat. Typical dry film thickness of Aeroglaze Z306 coating should be approximately 38.1-50.8 micron (1.5-2.0 mil).

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. A light mist coat should be applied, followed by a full wet coat of 76.2-101.6 wet micron (3-4 wet mil). Coverage rate is 9.3 m2/L (368 ft2/gal).

Curing

Aeroglaze Z306 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.

Under the acceptable curing conditions, the coating will develop its ultimate properties in approximately 7 days. Lower temperatures and humidities will retard 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; 36-48 hours permit normal usage.

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 before recoating.

Cleanup

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

TECHNICAL CHARACTERISTICS

Typical Properties*



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**, ASTM E 595-77	1.0% TML***, 0.02% CVCM****
Gloss @ 85°	15 maximum

^{*}Data is typical and not to be used for specification purposes

PRECAUTIONS FOR USE AND STORAGE

Shelf life is one year from date of shipment when stored in original, unopened container. Store indoors away from heat, sparks and open flames. To maintain product freshness, keep container closed when not in use and nitrogen purge after opening if possible.

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.

Limitations

•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



^{** 40} day cure at room temperature

^{***}Total Mass Loss

^{****}Collected Volatile Condensable Materials

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.