

socomore

Space and optical coatings

Innovative coatings solutions to boast an **extensive flight heritage and proven reliability**.



Application areas include telescopes, baffles, waveguides, vacuum test chambers, probes, satellites, boosters, and launch vehicles.

Low outgassing thermal control coating systems

The successful thermal design of spacecraft depends heavily on the use of coatings with specific emittance, absorptance, and low outgassing properties. The **AEROGLAZE topcoats** below have proven to **withstand the rigorous space environment**. Notable applications include **NASA's Hubble Telescope**, **Space Shuttle program**, and the **Long Duration Exposure Facility** (LDEF) experiment.

| TOPCOATS | | | |
|------------------------|----------------|----------------|----------------|
| TOI COATS | AEROGLAZE Z306 | AEROGLAZE Z307 | AEROGLAZE A276 |
| Appearance | Matte black | Matte black | Gloss white |
| Normal Emissivity | 0.90 | 0.90 0.89 | |
| Solar Absorptivity | 0.96 | 0.97 | 0.23 |
| TML (%)* | 1.0 | 1.06 | 0.99 |
| CVCM (%)* | 0.02 | 0.04 | 0.08 |
| Electrical Resistivity | non-conductive | 10²-10⁵ Ω/sq | non-conductive |

*The Total Mass Loss (TML) and Collected Condensable Material (CVCM) date are possible outgassing values that are obtained by a modified cure and/or bake-out schedule. Please refer to NASA's database at **outgassing.nasa.gov** or SOCOMORE NA Technical support at **techsupport-na@socomore.com** for more information.

PRIMERS

Aeroglaze primers provide **excellent adhesion** and **corrosion resistance** for a wide variety of substrates used in space and optical applications.

| | AEROGLAZE 9924 | AEROGLAZE 9929 | AEROGLAZE 9947 | AEROGLAZE 9741 |
|------------------|----------------|----------------|----------------|----------------|
| Туре | wash (etch) | ероху | wash (etch) | ероху |
| Contains Cr(VI) | • | ✓ | | |
| Bare aluminum | ✓ | | ✓ | |
| Alodine aluminum | | ✓ | | ✓ |
| Carbon composite | | | | ✓ |
| Nickel plating | | ✓ | | ✓ |

Interior/Exterior coating systems

The coatings below provide excellent performance, durability, and chemical resistance for interior or exterior space applications.

TOPCOATS

Socoglaze PT-799 Topcoat

May be used in interior or exterior applications. Available in FED-STD-595 colors, custom colors and gloss ranges. Static dissipative white or black version also available. Acceptable flammability, outgassing, and offgassing per NASA Handbook 8060/ASTM E595.

Chemglaze Z451 Topcoat

Best used for interior applications. Gray in color. Prevents corrosion of metallic substrates. Outstanding impact and abrasion resistance and flexibility.

PRIMERS

Socoglaze Primer 4201

May be used in interior or exterior applications. Static dissipative epoxy primer. May be used to achieve bulk static dissipation when used in combination with a static dissipative topcoat. Prevents corrosion of metallic substrates.



Other specialty coatings



TD20

Clear epoxy varnish that may be used to coat printed circuit boards or other electronic components. Corrosion preventive.

LFPH 006

Corrosion preventive varnish for heat systems or heat exchangers. Maximum operating temperature of 300°C. Available in various colors. Suitable for dip application.

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