TECHNICAL DATA SHEET

PRECISION. PERFORMANCE. PROTECTION.
REACTIVE POLYMER COATING

WHAT IS AV8?

AV8 Reactive Polymer Coating is engineered specifically for aircraft paint protection, with optical properties tuned to enhance clarity and depth under both natural sunlight and hangar lighting. The result is a surface that appears sharper, glossier, and more refined—on the ramp or in the air.

AV8 delivers a silky-slick feel that surpasses traditional ceramic coatings, offering a tactile finish that not only looks premium but feels it too. Application is simple and efficient: apply with an applicator or buffing pad, allow 2–4 minutes to flash, then gently buff to a high-gloss finish. That's it—no special equipment, no multiple layers, no hassle.

The entire process is designed for speed and efficiency, making it ideal for professionals seeking quick turnaround times without compromising on results. Once cured, AV8 forms a durable, hydrophobic barrier that actively repels water, grime, and environmental contaminants—making routine cleaning faster and easier with proper care, AV8 offers lasting protection for 12 to 24 months, even under typical operating conditions and regular washing cycles.

AV8 BENEFITS

- **High-Gloss Finish – Enhances depth, clarity, and reflective sharpness**
- **Silky-Slick Surface – Delivers a tactile feel superior to ceramic coatings**
- **Durable Protection – Withstands harsh environments and regular washing**
- **Hydrophobic & Easy-to-Clean – Repels water, grime, and contaminants**
- **UV & Chemical Resistant – Shields against sun, fuel, and deicing fluids**
- **Fast & Simple Application – Wipe on, wait, and buff off—no special tools**
- **Room Temperature Curing – No infrared curing or heat guns required**
- **Fluorine-Free Formula – Safe, modern chemistry with no harmful additives**

RECCOMENDED APPLICATION PROCEDURE

1. Surface Preparation

For optimal bonding and finish, we highly recommend polishing the aircraft prior to application. If the paint is new or in like-new condition, polishing may be skipped.

Start with a thorough cleaning of the aircraft:

- **Degrease the surface to remove oils, residue, and prior treatments**
- **Wash the aircraft completely**
  - **Dry wash is preferred**
  - **If wet washing, always use deionized (DI) filtered water to prevent mineral spotting**

After washing, ensure the surface is free of contaminants.

- **Use a synthetic clay mitt with a dedicated lubricant to decontaminate the exterior**
- **We recommend X-Aero Mitts, but most quality clay mitts are suitable**

2. Coating Application

- **Apply AV8 using a clean, no-soak applicator pad**
- **Spread an even layer across the surface**
- **Use approximately 2 tablespoons of product per 3 ft x 3 ft (9 sq ft) section**
- **After application, allow 2–5 minutes of flash time (depending on ambient temperature and humidity)**
  - **The coating will appear wet initially, then transition to a matte haze**

3. Product Removal & Inspection

- **Once hazed, remove the coating using a random orbital polisher with a clean microfiber pad**
- **Perform a thorough walkaround to ensure all residue has been removed and the finish is uniform**

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RECCOMMENDED APPLICATION ENVIROMENT

- **Temperature (min to max) 10 deg C to 35 deg C**
- **Humidity (min to max) 50% to 95% RH**
- **Multiple layers coating window**
- **Cure time 77F (25C) 4 hours**
- **Full cure 77F (25C) 24 Hours**
- **Coverage (250ml) 250-350 Sq. Ft.. (Approx)**

REMOVAL

Repainting - AV8 will not cause painting issues and can be sanded off with the current paint layer. It consists of silicone resins and is non-oil based and will not cause paint defects.

Re-coating - AV8 can be removed by polishing machine using a cutting compound or machine polishing if the paint beneath requires restoration. If the paint is in good condition see the section above.

Repair - Simply recoat over existing AV8 to repair defect

TECHNICAL DATA

Appearance: White to Tax Creamy liquid
Density: ca. 0.93 g/cm
Solid content: 55 %
Binder base: organic Aminofunctional silicone resin
Solvent base: Water based emulsion
Flash point: Null
Shelf life: 1 year from delivery date at 86F (30C)
Container size: 250ml or 1lt bottles
Thickness cured: ~0.5um nominal

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MANUFACTURE APPROVALS TESTING BY SMI INTL.

BOEING D6-17487 Revision R (Revision date: May 14, 2010)
Test requirements for:
"Exterior and General Cleaners, Liquid Waxes, Polishes and Polishing Compounds"
Acrylic Crazing Test - Paint Softening Test - Hydrogen Embrittlement Test

DOUGLAS AIRCRAFT COMPANY Customer Service Document (CSD) Number 1 (Rev. July 1997)
Test requirements for Type V – Polishes: Residue, Stress Crazing of Acrylic Plastic, Immersion Corrosion, Aluminum, Hydrogen Embrittlement

SAE AEROSPACE MATERIAL SPECIFICATION
SAE AMS 1650C "POLISH, AIRCRAFT METAL"
Corrosion of Metal Surfaces: Total Immersion Corrosion Effect on Plastic, Painted Surfaces & Unpainted Surfaces

AIRBUS
AIMS Airbus Material Specification
Evaluation of Maintenance Materials / Material Specification
AIMS 09-00-002 (Issue 3, July 2011)
Test Requirements for: Waxes, polishing compounds and protective surface coatings
5.3.3 Hydrogen embrittlement (ASTM F519, cad-plated Type 1c, 45%, 150 hrs)
5.3.4 Paint Softening (2024-T3 clad aluminum substrate, coated in accordance with ASTM F502, utilizing the following paint schemes/tested per ISO1518: Interior paint scheme: Epoxy primer without topcoat: Primer: MIL-PRF-23377 Type I, Epoxy, High Solids Exterior paint scheme: Epoxy primer with polyurethane topcoat: Primer: MIL-PRF-23377 Type I, Epoxy, High Solids Topcoat: MIL-PRF-85285 Type I, Polyurethane, High Solids

<u>This coating has been extensively weathered to ASTM 154-06 cycle 6 for 2000 hours</u>

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ALL SMI CERTS ARE KEPT ON FILE & CAN BE REQUESTED AT ANYTIME