SHERWIN-WILLIAMS

AEROSPACE COATINGS

PRODUCT DATA

JetFlex® WR Aircraft Interior Finish

Water Reducible Polyurethane Dispersion

981400 Series (P and F Colors)

ADVANTAGES

- Designed to meet the performance criteria of the FAR/JAR 25.853.
- One Package – no catalyst
- Water based – No flash point and low odor.
- VOC of less than 2.3 lbs/gal (275 g/L) at application.
- Uses DI water for reducing and cleaning.
- Excellent solvent, hardness and chemical resistance.
- Excellent hardness.
- Air-dry or force dry.
- Unlimited solid colors available at multiple gloss ranges with intermix system.

DESCRIPTION

JetFlex® WR Aircraft Interior Finish is a low VOC, single component, water reducible polyurethane dispersion intended for the aircraft interior market. It provides a smooth or texture-coating system on structural foam, injection molded plastic, or treated steel. JetFlex® WR provides performance properties similar to two component solvent-based polyurethanes.

COATING PROPERTIES

	Base Component
Solids:	
By weight	40.5 – 52.6%
By volume	37.3 – 40.1%
Wt./Gal.	8.7 – 10.5 lbs.
Sp. Gravity	1.05 - 1.25
V.O.C.	
As Packaged, Maximum	2.3 lbs./gal (275 g/L)
Gloss:	
Type II – Low Gloss (P- colors)	20 - 30 units
Type III - Flat (F- colors)	8 - 12 units
Theoretical Coverage	
Per dry mil	548-643 sq. ft.^{2}/gal.
Per 25 microns	14.7–15.8 m^2 / L
Dry Film Weight	
Per dry mil	.0058 - .0086 lbs./ft.^{2}
Per 25 microns	28.4-42.0 g/m^2
pH	8.2 – 8.7

SHELF LIFE

Shelf Life is applicable only for materials stored in unopened and undamaged original factory filled containers.

Minimum Storage Temp: 40ºF / 4ºC. *Avoid freezing. Freezing may destroy product.*
Maximum Storage Temp: 100ºF / 37ºC

CM09814XX (P & F-colors) Base Component: 24 months

Aerosol Touch –up Kits: 12 months
Cool, Dry Storage Required.

SURFACE PREPARATION

General: Surface should be free of grease, dirt, fingerprints, rust and other foreign matter to insure optimum adhesion.

Plastic: Clean thoroughly to remove contaminants and mold release agents. Use isopropyl alcohol or other suitable solvent cleaner. If necessary, prime with JetFlex™ Primer CM0480930 to obtain adhesion. JetFlex® WR Spray Fil CM0481505 may be used for adhesion and filling on plastic substrates. Test system integrity before use or consult your Sherwin-Williams aerospace representative for additional information.

Metals: Chemical treatment such as Zinc or iron phosphate is recommended. Prime with JetFlex® Primer CM0480930 if required.

MIXING INSTRUCTIONS

JetFlex® WR is a single component product. No mixing is required. Material should be stirred prior to using. Do not shake.

Water reducible coatings should be applied at high viscosity. They atomize very easily at higher viscosity. Do not use a viscosity cup to measure viscosity. ONLY USE DI WATER FOR REDUCING VISCOSITY.

APPLICATION

Basecoat / smooth coats may be applied by conventional, airless, air assisted airless, HVLP or electrostatic methods. Texture coats must be applied using conventional or HVLP spray. Please consult your Sherwin-Williams representative for specific equipment settings.

1. Always air-blow and tack-wipe the surfaces to be painted. Assure that the aircraft is properly grounded for potential static buildup.
2. Make sure pots, guns, and lines are purged and cleaned.
3. Mix thoroughly and filter strain before spray applying. Keep container closed to prevent skinning of this fast dry coating.
4. Use the following settings.

Conventional Spray – Smooth Coat

Air pressure	40-60 psi (2.75–4.15 bar)
Fluid pressure	10-12 psi (0.69–0.83 bar)
Cap/tip	797/FF
DI water reduction	as needed up to 10-25%

Conventional Spray – Texture Coat

Air pressure	25-35 psi (1.75–2.40 bar)
Fluid pressure	5-15 psi (0.35-1.05 bar)
Cap/tip	797 or 765/FF
DI water reduction	as needed up to 10%

HVLP – Smooth Coat

Gun	Binks Mach 1
Atomizing air	40-65 psi (2.75-4.50 bar)
Fluid pressure	6-10 psi (0.41-0.69 bar)
Cap/tip	95P/97
DI water reduction	10-25%

HVLP – Texture Coat

Atomizing air	20-30 psi (1.38-2.07 bar)
Fluid pressure	6-15 psi (0.41-1.05 bar)
DI water reduction	0-10%

5. Product should be applied at temperatures above 50°F.
6. Best application results are obtained by applying two medium wet coats. Allow 10-15 minutes flash off of basecoat before applying texture coat.
7. Recommended dry film thickness is 1.2-1.6 mils (30 - microns) – Wet 3-4 mils (75-100 microns). A minimum of 1.1 mils (28 microns) dry film thickness is required for good adhesion and film integrity.
8. To apply in a texture finish, catalyze and reduce a maximum of 10%. Adjust the air and fluid pressures when spraying to create texture. Texture pattern is dependent on equipment setup, viscosity, and operator technique.
9. To lower the gloss of a color, use CM0981496 JetFlex WR Flattening Paste.

NOTE: Application of these product systems requires recommended temperature / humidity conditions and film thickness ranges.

DRYING SCHEDULE

Dry times are based on the dry film thickness of 1.2 mils (30 microns).

Air Dry Times (75°F / 25°C and 50% RH)

To Touch	20-30 minutes
To Handle	40-50 minutes
To Pack	Overnight

Force Dry (140°F/ 60°C)

Dry Through	30 minutes

For optimum hardness and cure, allow 2-4 weeks of air-drying for 1.5 – 2.0 miles (38-50 microns) dry film. Heavier mils may require 6-8 weeks. Full cure is attained after 48 hours of additional air-drying.

NOTE: Good air movement and humidity control is necessary for proper drying of water reducible coatings. Cure test is 100 double rubs with MEK, slight burnishing.

EQUIPMENT CLEANUP

Clean equipment and lines immediately with water. If dried, clean with a blend of water and ammonia as soon as possible. Only use after cleaning, Ketone grade solvents to clean equipment to prevent rusting.

USE OF SYSTEMS STATEMENT

Because of the many types and compositions of plastic available, each user should test the coating on each substrate before production use. Customers must also verify FAR/JAR 25.853 regulation compliance on their substrate and system.

PRODUCT INFORMATION

Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or under our control, The Sherwin–Williams Company cannot make any warranties as to the end result.