



Sunstate Aviation

7975 E. McClain Drive
 Scottsdale, AZ 85260
 602.683.0283

To document/show the **application sequence** for the **W.E. O'Neil Construction / Sunstate Aviation** project at the Scottsdale Airport, attached are photographs showing the hangar floor work in progress from April to May 2008. There is no distribution made of these photographs except to **W.E. O'Neil Construction / Sunstate Aviation / REDFORD Corporation**.

Again, this case history is strictly for informational purposes, and to show the application sequence and are intended for **W.E. O'Neil Construction/ Sunstate Aviation** and **REDFORD Corporation** only.

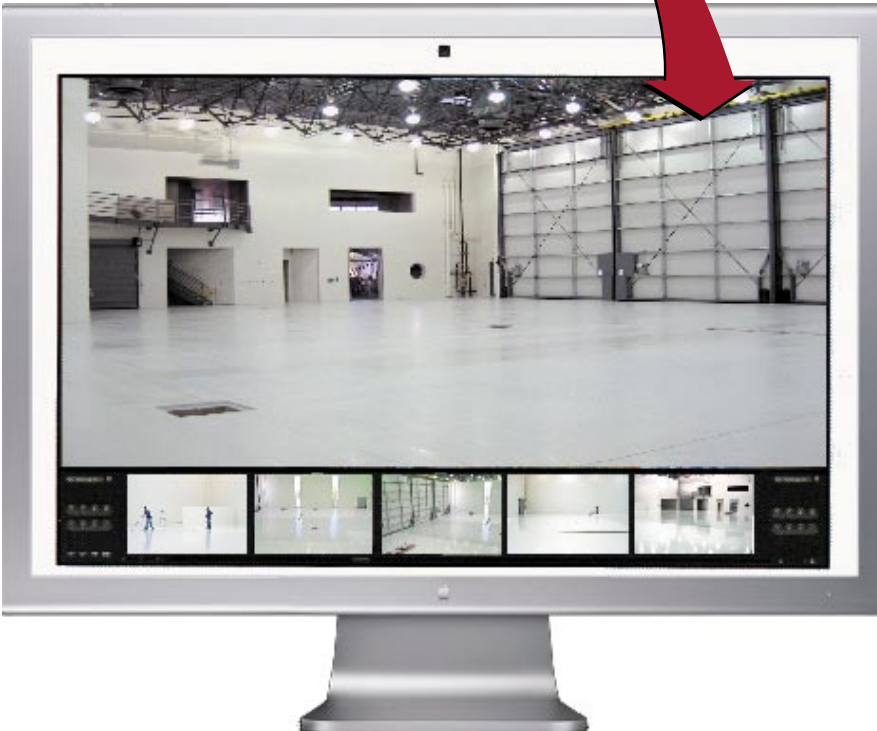
<p>REDFORD Corporation Crack Filler R33-1284</p> <p>Instructions for use: This product is used to fill cracks in concrete and masonry surfaces. It is applied by hand or with a caulking gun. It is available in two colors: white and grey. It is applied in a 1/2" to 1" wide crack and is applied to a depth of 1/2" to 1". It is applied in a 1/2" to 1" wide crack and is applied to a depth of 1/2" to 1".</p>	<p>REDFORD Corporation U31-1281 Linear Urethane</p> <p>Application: This product is used to seal and protect concrete and masonry surfaces. It is applied by hand or with a brush. It is available in two colors: white and grey. It is applied in a 1/2" to 1" wide crack and is applied to a depth of 1/2" to 1".</p>	<p>REDFORD Corporation Epoxy Coating E31-1282</p> <p>Application: This product is used to seal and protect concrete and masonry surfaces. It is applied by hand or with a brush. It is available in two colors: white and grey. It is applied in a 1/2" to 1" wide crack and is applied to a depth of 1/2" to 1".</p>	<p>REDFORD Corporation U31-1281 Linear Urethane</p> <p>Application: This product is used to seal and protect concrete and masonry surfaces. It is applied by hand or with a brush. It is available in two colors: white and grey. It is applied in a 1/2" to 1" wide crack and is applied to a depth of 1/2" to 1".</p>	<p>REDFORD Corporation U31-1281 Linear Urethane</p> <p>Application: This product is used to seal and protect concrete and masonry surfaces. It is applied by hand or with a brush. It is available in two colors: white and grey. It is applied in a 1/2" to 1" wide crack and is applied to a depth of 1/2" to 1".</p>	<p>REDFORD Corporation Epoxy Coating E31-1282</p> <p>Application: This product is used to seal and protect concrete and masonry surfaces. It is applied by hand or with a brush. It is available in two colors: white and grey. It is applied in a 1/2" to 1" wide crack and is applied to a depth of 1/2" to 1".</p>
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General Contractor:
W.E. O'Neil Construction Co.
 4511 E. Kerby Ave.
 Phoenix, AZ 85040
 480.921.8000






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REDFORD Corporation Epoxy Coating E31-1202

1075 Kingswood Drive • Kingswood, Texas 77339 • (281) 338-4100

Mix ratio 2:1 (A:B) parts by volume	
Mixing viscosity 700 cps	
Pot life (one hour) 60 minutes (200 grams @ 25 °C)	
Color Clear, grey, beige, and white	Coverage 100 sq. ft. @ 1/8"

TECHNICAL INFORMATION	
Ultimate tensile strength (psi) 8700	Tensile elongation (%) 2.1
Ultimate flexural strength (psi) 10,100	Compressive (psi) strength (1000) 12,000
Hardness (Shore D) 85	

DESCRIPTION
 E31-1202 is a low viscosity, white clear or pigmented, 100% solids epoxy specifically designed as a high performance color coating for areas where no residual moisture exists.

Outstanding features include:

- ✓ good mechanical light resistance compared to most formulated epoxies
- ✓ excellent chemical resistance
- ✓ excellent electrical resistance
- ✓ good color development
- ✓ high abrasion resistance
- ✓ excellent adhesion

AVAILABILITY
 Packaged in three gallon units, six gallon units, 15 gallon units, and drum units. For more information, including prices, call REDFORD Corporation (281) 338-4100.

APPLICATION
 It is critical, correct technical bulletin committed to your application will be prepared, including Preparation of concrete specifications for application of epoxy and Using spacers for leveling.

Customer assistance
 Redford has an excellent technical support team. In addition, we have an application team, in our laboratory or your area, who can provide a complete test plan or full scale evaluation with GMAW. Redford is a proud member of the International Protective Coatings Association (IPCA) and the International Protective Coatings Institute (IPCI).

Floor in May 2008 with E31-1202 -64 epoxy primer applied.

REDFORD Corporation U31-1201 Linear Urethane

1075 Kingswood Drive • Kingswood, Texas 77339 • (281) 338-4100

Description REDFORD Corporation U31-1201 Linear (aliphatic) urethane is a two-part, clear high performance coating formulated for maximum chemical and abrasion resistance on aircraft hangar concrete floors. Other successful areas include a variety of concrete surfaces, as performance is rated highest of all commercially available coating types.		Typical Properties	
Features and benefits		Shade by wt.	
<ul style="list-style-type: none"> ✓ Excellent impact, abrasion, and chemical resistance ✓ Ultra clear finish, long term gloss retention ✓ Maximum light reflectance ✓ Easy to clean ✓ Excellent color retention ✓ Best resistance to Skidplate ✓ Meets VOC requirements of 340 g/gal 		60%	
Preparation Apply coating to clean, sound substrate. Thoroughly wet all concrete surfaces to be coated. If necessary, use a concrete conditioner. It is also helpful to use a rough primer on the concrete to ensure a good mechanical bond. After mixing with light blue bond primer, view bonding or seal setting on surface to be coated. Surfaces should be washed, prepared and treated.		Cure schedule	
Application Apply with medium size roller, brush or spray. If necessary, reduce with thinner. For a skidproof surface, mechanically broadcast sanding grit into the wet coating. Skidproof within 15 minutes of coating application.		Full cure 5 to 8 hours Recoat 24 hours Light traffic 24 hours Full cure 1 to 3 days (Recoat once within time for temperatures above 70 °F)	
Maintenance For long term floor preservation and care, we recommend REDFORD Corporation VAC Clean 100. Frequency of cleaning will be based on the soil. Do not use abrasive floor care pads, rotating pads, or scrubbers. If you use a floor machine, we recommend using heavy brushes especially if you opt for the slip resistant coating system. Mechanical scrubbers will damage the floor but not harm the coating.		Film thickness	
Customer assistance Redford has an excellent technical support team. In addition, we have an application team, in our laboratory or your area, who can provide a complete test plan or full scale evaluation with GMAW. Redford is a proud member of the International Protective Coatings Association (IPCA) and the International Protective Coatings Institute (IPCI).		Recommended 3 to 5 mils wet	
		Mix ratio	
		2 to 1 by volume	
		Shelf life	
		1 year	
		Class	
		Singleline High gloss	
		Color	
		Clear, light grey, dark grey, red, green, blue, black, and special colors such as safety yellow	

Floor completed with U31-1201 High Performance Urethane topcoats applied (May 2008).



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Hangar occupied - Photographs courtesy of Mike Fessenden,
Sunstate Aviation, February 2009.



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Case History Update, January 2010: For reasons not completely known, but partially due to the type of scrubbing brushes/detergent used, it was decided to recoat the Sunstate Aviation hangar floor in January 2010 (with U31-1201, off white). The photographs below show the process and documents the application for further study.



FRONT OF HANGAR



BACK OF HANGAR



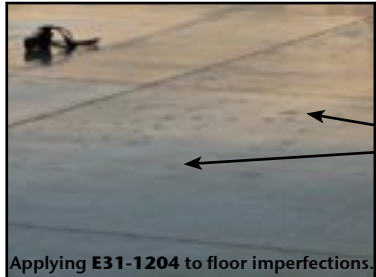
Power Sanding / Profiling Floor for Recoating



Repairing Spalled Edges Around Service Pits



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Applying E31-1204 to floor imperfections.

REDFORD Corporation U31-1201
 Clear Finish

Instructions for use
 1. The U31-1201 is a two-part, water-based, epoxy resin floor finish. It is designed for use on concrete and other hard, smooth surfaces. It is not intended for use on wood, masonry, or other porous surfaces.

Preparation
 1. The surface must be clean, dry, and free of any oil, grease, or other contaminants. It must also be free of any loose material, dust, or debris.

Application
 1. The U31-1201 is applied in two coats. The first coat is applied in a thin, even layer. The second coat is applied after the first coat has dried.

Curing Time
 The U31-1201 cures in 24 hours. It is ready for use after 48 hours.

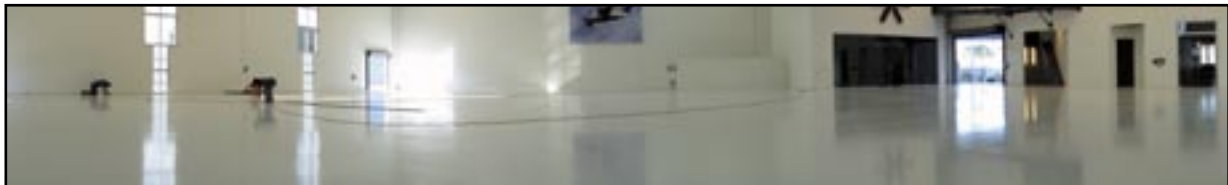


Applying U31-1201 finish coat.

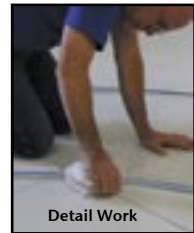
REDFORD Corporation U31-1201
 Clear Finish

Technical Data

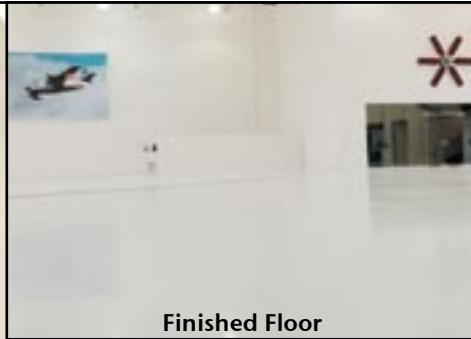
Property	Value
Color	Clear
Viscosity	100-150 cps
Density	1.10 g/cm³
Shelf Life	12 months
Storage Temperature	50-80°F
Application Temperature	50-80°F
Drying Time	24 hours
Curing Time	48 hours
Recoat Time	24 hours
Compatibility	Compatible with most floor finishes
Notes	Always use proper safety precautions.



Trimming



Detail Work



Finished Floor



Finished Floor



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