All Weather Floors

TruAlloy AWF-100
MOISTURE CURED URETHANE ALUMINUM COATING

PRODUCT DESCRIPTION

A one component, Moisture Cured Polyurethane Aluminum Coating. Has excellent adhesion to sound, tightly adherent rusty steel, and other marginally prepared surfaces. This low viscosity, high "wetting" coating undergoes a rapid molecular weight change as it polymerizes into a high molecular weight finish which provides excellent corrosion resistance and abrasion resistance. Its resistance to creeping, undercutting, and blistering is superior to epoxy primers. AWF-100 is also a barrier primer or tie coat to prevent lifting of strong solvent top coats over conventional coatings, and most chemical coatings.

PRODUCT FEATURES

1. Primer for all types of surfaces.
2. Excellent "wetting out" properties over sound, rusty steel.
3. Fast recoating, 1-2 hours.
4. Cures down to 18°F on dry surfaces.
5. Excellent corrosion resistance, passed 1,200 hours in salt cabinet.
6. One package. Easy to use.
7. Outstanding abrasion resistance.
8. May be topcoated with most generic type coatings.
9. Very good weather resistance.
10. High heat, up to 400°F dry.
11. Excellent as a barrier coat over lead based coatings.
12. USDA Approved.

TECHNICAL DATA

COLORS: Aluminum

FINISH: Low sheen

VOLUME SOLIDS: 51% ± 3%

COVERAGE: 270-400 sq. ft. per gallon

RECOMMENDED DRY FILM THICKNESS: 2-3 mils

MIXING RATIO: One component, stir well

THINNING: Up to 10% with Xylene

CLEAN UP: 100% MEK

RECOAT TIME @ 75°F and 50% R.H.:
2 hrs. minimum; 6 hrs. maximum

APPLICATION: Roll, brush or spray

APPLICATION TEMPERATURE: 50°F to 120°F dry

DRY SERVICE TEMPERATURE: 400° (Intermittent Exposure)

SHELF LIFE: Minimum of 6 months

PACKAGING: 1 & 5 Gallon cans, Quarts

V.O.C.: 446 GMS/LITERS

PRODUCT USES

Excellent as a universal primer for metal, steel, fiberglass, weathered galvanized metal. Also over old coatings and for polyurethane foam protection. Outstanding coating for interior concrete surfaces.

For use over sound, tightly adherent rust where only wire brush or hand tool cleaning is feasible. For remedial painting of fences, metal buildings, hand and guard rails, pumps, pipelines, grating, and other hard to clean surfaces.

Ideal as a barrier coat over lead based coatings and conventional coatings. The low solvency power of AWF-100 enables it to be applied over most type coatings without causing lifting. A test sample should be made to confirm adhesion. Most generic types of chemical or conventional coatings may be applied over AWF-100 with excellent adhesion.

Has excellent chemical resistance as a Finish Coat to protect metal surfaces in chemical plants, refineries, pulp and paper mills, waste and water treatment plants, electric generating stations, fertilizer plants, food processing, pharmaceutical, ore processing operations, marine installations, etc.

SURFACE PREPARATION

1. Concrete:

In all cases of surface preparation, the pH should be checked. A pH reading of 7.0 to 8.5 is acceptable. Also, a Water Dissipation Test should be made on random areas of the floor to determine if the proper degree of porosity has been achieved. If the water is absorbed into the concrete and leaves it wet, the substrate is porous and thus acceptable for coating. If water beads up, then there may be a hardener, bond breaker, or something else that will interfere with the adhesion of the coating.

Before the installation of any All Weather Floors Products, the substrate should be examined for moisture. Test for moisture vapor transmission using ASTM F-1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor using Anhydrous Calcium Chloride. The maximum allowable rate is 3 lbs. per 1,000 square feet per 24 hours. Test for relative humidity in concrete floor slabs using Probes according to ASTM F-2170. This test measures the presence relative humidity of the slab below the sur-face. The maximum relative humidity should be below 80%.

New concrete must be cured at least a minimum of 28 days before applying a coating. On-grade slabs must have moisture vapor barrier in place. All laitance, sealers, efflorescence, chemical contaminants, grease, oil and other foreign material must be removed. The prepared surface must be clean, dry and structurally sound. All Weather Floors recommends mechanical preparation by means of diamond grinding to achieve a CSP-2 or CSP-3 profile, in accordance with the International Concrete Repair Institute (ICRI). Acid Etching is also acceptable and is often preferable when using thin build coatings

over a surface that has not been previously coated. Please see our PDF on "A Guide to Acid Etching Concrete". The profile should reflect something similar to a 80-100 grit sandpaper. If the substrate is not properly prepared and the appropriate profile is not achieved, failure of the product to adhere to the substrate may occur.

Old concrete surfaces must be structurally sound. Any unsound areas must be repaired prior to proceeding with the resinous installation. For proper patching and repairing, use an approved repair material. Remove existing paint and loose concrete by rough sanding, sandblasting, high pressure water cleaning, shot blasting or grinding. In some cases where plant conditions allow, a stripper may be used to remove excessive build-up of paints or sealers.

2. **Steel**

For best results, sand blast to a SSPC-SP6 "commercial" blast finish. Where blasting is not appropriate, remove all loose rust and mill scale by power wire brushing or hand tool cleaning. A tightly adherent rusty surface is acceptable.

3. **Galvanized Steel - Aluminum**

a. New - Brush blast per SSPC-SP7 before applying AWF-100.

b. Old, Weathered, or Rusty - Remove all oil, grease, dirt, and other foreign matter. Surface should be reasonably clean, dry, and free of contaminants. Remove all loose rust, etc., as outlined above under steel.

4. **Previously Painted Surfaces**

Remove all loose, peeling, or blistered paint, and any other surface contaminants. Make sure surface is sound and dry. Apply a test patch of AWF-100 over existing coating to insure good adhesion.

MIXING INSTRUCTIONS

AWF-100 is made ready for use by stirring so that the aluminum pigment is thoroughly dispersed in the resin and a uniform "silver" color is achieved. Do not use a paint shaker. When used over a period of time, stir occasionally to maintain uniform mix. Thinning is not usually necessary. If needed, use up to 10% Xylene Urethane Reducer which is a water free grade. Always keep partially used containers tightly sealed to prevent air moisture from reacting with the material and forming a tough skin. Skin can be removed and remaining material used.

NOTE: Always wear protective gloves and clothing while mixing and applying AWF-100. Do not get on skin. AWF-100 is difficult to remove.

APPLICATION PROCEDURE

AWF-100 may be applied by brush, roll, or spray. We do not suggest spray applications for concrete surfaces. The use of a sprayer is reserved for industry professionals with appropriate safety and technical training. For rolling, use a ¼" – 3/8" shed resistant phenolic core cover. When brushing, use a bristle brush. For spray it is important that a moisture/oil trap be used on incoming air and that fluid lines be flushed first with an anhydrous solvent (water free) such as 100% MEK. Also, flush every 1-2 hours during use to keep lines clean from material build up. Required equipment is as follows:

1. **Airless Spray** - Use a minimum 20:1 ratio pump with 80-100 psi inbound air. Recommend a .013" - .017:" tip. Adjust pressure for proper atomization based on selected tip.

2. **Convention Spray** - Use a dual regulated pot with 15-25 psi fluid pressure and 40-50 psi atomization pressure. A Binks #18 with a 704E tip/air cap is recommended.

When spraying, use a 50% overlapping crosshatch pattern to minimize the occurrence of pinholes. Do not apply to surfaces below 18°F or above 140°F. Do not apply over dew or frost. The surface should be dry and at least 5°F above the dew point.

Please review the All Weather Floors TruAlloy Installation Instructions for detailed installation information over concrete surfaces.

LIMITATIONS

1. Do not apply over frost, wet or damp surfaces or extremely high humidity conditions.
2. Not recommended as tank lining for constant immersion.
3. Must be recoated the same day.
4. Partially used containers must be reclosed tightly to prevent moisture in air from reacting with material and forming a tough skin. Skin can be removed and remaining material used. Be sure to stir.

RECOAT TIME

Based on temperature of 75°F and 50% R.H. (relative humidity), AWF-100 is tack free in 1-2 hours and may be overcoated in 2-3 hours. Always check for fingernail hardness. For maximum adhesion, recoat no longer than 6 hours at 75°F and 50% R.H. High temperatures and humidity will shorten recoat time. When applying conventional paints (e.g., Alkyds, Silicone, Enamels and Acrylics) AWF-100 must be top coated as soon as AWF-100 has dried. If AWF-100 gets rained on or has condensation form on its surface, a sweep blast is necessary to abrade the surface before applying a topcoat.

CAUTIONS

AWF-100 is flammable. Keep away from all sources of ignition during mixing application and cure. Contains aromatic polyisocyanates. Proper ventilation is necessary when painting indoors or confined areas. Vapors and spray mist may cause eye/skin irritation as well as allergic reactions. Always wear protective clothing, goggles, impervious gloves and use NIOSH approved respirators. For industrial use only. Keep out of reach of children. This product is sold without warranty as to performance expressed or implied. Users are urged to make their own tests to determine the suitability for their particular conditions.

SEE MATERIAL SAFETY DATA SHEET FOR FULL SAFETY PRECAUTIONS.
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All Weather Floors

TruAlloy AWF-192 CLEAR ALIPHATIC MOISTURE CURED URETHANE

PRODUCT DESCRIPTION

AWF-192 is a single component, high performing, aliphatic moisture cured clear urethane coating that dries quickly to a hard abrasion resistant film. AWF-192 is used as a topcoat for decorative floors, toppings and pigmented epoxy concrete coatings. Due to its excellent impact and abrasion resistance, AWF-192 is widely used in heavy traffic areas.

PRODUCT FEATURES

1. Unmodified oil free urethane.
2. Excellent chemical resistance.
3. One component, easy to use.
4. Highly resistant to abrasion and impact.
5. Non-yellowing.
6. Extremely hard, yet flexible film.
7. Easy to clean and maintain.
8. Excellent stain resistance.
9. Topcoat for decorative floors.
10. Water - clear color.

PRODUCT USES

AWF-192 is ideal as a clear top coat for TruAlloy Aluminum, color quartz, vinyl/acrylic chip decorative floors, pigmented epoxy and polyurethane coatings, epoxy slurries/mortars, interior wood, brick and warehouse floor coatings. AWF-192 is designed for application in factories, assembly plants, labs, public institutions, schools, garages, showrooms and many other facilities.

TECHNICAL DATA

COLORS: Clear

FINISH: Gloss

VOLUME SOLIDS: 62% ± 3%

RECOMMENDED FILM THICKNESS: 2.0 - 3.0 dry mils per coat @ 300-400 sq. ft. per gallon

MIXING RATIO: One component - single package

APPLICATION: Short nap roller, spray, Lambswool applicators,or bristle brush

APPLICATION TEMP.: 50° - 90°F

PACKAGING: 1 Gallon Cans

THINNING: Normally none required

POT LIFE: (@75°F & 50% RH) 1-2 hours

RECOAT TIME: (@ 75°F & 50% R/H) 2 hours minimum; 6 hours maximum

CLEAN UP: MEK

SHELF LIFE: Minimum of 6 months in unopened containers stored at 50°F - 90°F

V.O.C.: 2.82 lb/gal (338 GMS/L)

SURFACE PREPARATION

In all cases of surface preparation, the pH should be checked. A pH reading of 7.0 to 8.5 is acceptable. Also, a Water Dissipation Test should be made on random areas of the floor to determine if the proper degree of porosity has been achieved. Before the installation of any All Weather Floors Products, the substrate should be examined for moisture. Test for moisture vapor transmission using ASTM F-1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor using Anhydrous Calcium Chloride. The maximum allowable rate is 3 lbs. per 1,000 square feet per 24 hours. Test for relative humidity in concrete floor slabs using Probes according to ASTM F-2170. This test measures the presence relative humidity of the slab below the surface. The maximum relative humidity should be below 80%.

New concrete must be cured at least a minimum of 28 days before applying a coating. On-grade slabs must have moisture vapor barrier in place. All laitance, sealers, efflorescence, chemical contaminants, grease, oil and other foreign material must be removed. The prepared surface must be clean, dry and structurally sound. All Weather Floors recommends mechanical preparation by means of shot blasting or diamond grinding to achieve a CSP-2 or CSP-3 profile, in accordance with the International Concrete Repair Institute (ICRI). The profile should reflect something similar to a 60-100 grit sandpaper. If the substrate is not properly prepared and the appropriate profile is not achieved, failure of the product to adhere to the substrate may occur.

Old concrete surfaces must be structurally sound. Any unsound areas must be repaired prior to proceeding with the resinous installation. For proper patching and repairing, use CF-615 and/or PC-1000 with graded aggregate. Remove existing paint and loose concrete by rough sanding, sandblasting, high pressure water cleaning, shot blasting or grinding. In some cases where plant conditions allow, a stripper may be used to remove excessive build-up of paints or sealers.

MIXING INSTRUCTIONS

AWF-192 is made ready for use by stirring. When used over a period of time, stir occasionally to maintain uniform mix. Thinning is not usually necessary. If done, use up to 1 pint Xylene

APPLICATION PROCEDURE

TruAlloy AWF-192 Clear Polyurethane is a top coat and is normally not recommended directly over unprimed surfaces. Apply over appropriate primers, intermediate coats, or decorative floors. Surfaces must be free from all oil, grease, water or other foreign matter. Surface should be dry and above 50°F and rising. Relative humidity should not exceed 85%. TruAlloy AWF-192 is moisture sensitive during application and initial cure. Do not apply if surface temperature is within 5° of Dew Point. Not recommended on floors susceptible to hydrostatic pressure. Best methods of application are using lambswool applicators or short nap rollers. AWF-192 can be brushed by using pure Chinese bristle brushes. For rolling, use a ¼" – 3/8" shed resistant phenolic core cover. Roll in the same direction, always keeping a wet edge. Do not over roll product when applying multiple coats of AWF-192; lightly sand between coats. Be sure to remove all dust. For safety and proper curing, proper ventilation is necessary throughout application and cure. Any foodstuff and furnishings in the application area should be removed prior to application. When using pigmented Intermediate Coats, be sure the batch numbers are all the same to provide a uniform base color. AWF-192 can be sprayed with an airless unit.

Please read the TruAlloy Installation Instructions for Full Details.

LIMITATIONS

1. Do not apply over frost, wet or damp surfaces or extremely high humidity conditions.
2. Not recommended as tank lining for constant immersion.
3. Must be recoated within 6 hours at 75°F and 50% R.H.
4. Partially used containers must be reclosed tightly to prevent moisture in air from reacting with material and forming a tough skin. Skin can be removed and remaining material used. Be sure to restir.

TEMPERATURE	HUMIDITY	TACK FREE	MINIMUM RECOAT	MAXIMUM RECOAT
90°F	50%	30 mins.	1 hour	4 hours
75°F	50%	1 hour	2 hours	6 hours
50°F	35%	2 hours	4 hours	8 hours

CAUTIONS

AWF-192 is flammable. Keep away from all sources of ignition during storage, mixing, application and cure. Contains Polyisocyanate based on aromatic solvents. When applying, the use of goggles, fresh air masks or NIOSH approved respirators, protective skin cream, and protective clothing is recommended as a standard practice. This product is sold without warranty as to performance expressed or implied. Users are urged to make their own tests to determine the suitability for their particular conditions.

SEE SAFETY DATA SHEET FOR FULL SAFETY PRECAUTIONS
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KEEP AWAY FROM CHILDREN. NOT FOR RESIDENTIAL USE