

TECHNICAL DATA

FROG SHIELD CLEAR GLOSS U/V

WATERBORNE 2 COMPONENT GRAFFITI RESISTANT COATING

DESCRIPTION: **Frog Shield** is an innovative, waterborne, two component aliphatic acrylic polyurethane coating system which is highly resistant to graffiti, abrasion, wet conditions, corrosive fumes and chemical contact. When finally cured, it exhibits outstanding retention of initial gloss on long-term weather exposure. It is also highly resistant to the chemical used in graffiti removal, which allows graffiti to be removed without damaging the finish.

RECOMMENDED USES:

Coating steel tank exteriors, equipment and structures, galvanized steel, non-ferrous metals, concrete, wood and masonry in highly corrosive or graffiti prone environments. Structures painted with **AquaCote** and Bulletin Colors can be clear coated in 48 hours. Excellent for amusement rides and over receptive vinyl. When properly cured, this system gives very good underwater protection.

PRECAUTIONS:

IMPORTANT! Before using clear top coats, perform a patch test 1). To test adhesion 2). To determine if the clear causes any cracking or lifting of the surface coating and 3). To determine that the clear gives the desired finish (It is especially important to test for clarity over dark colors and whites).

SURFACE

PREPARATION:

All surfaces must be clean and free from loose or peeling paint, grease, oil, dirt, rust, mill scale and other contaminants. If this procedure is not observed, the drying and adhesion of any coating will be adversely affected. Prepare surfaces by method suitable for exposure and service. Hand or power tool clean failed areas (SSPC – SP2 or SP3). **Previously Painted Surfaces:** Dull glossy areas by light sanding to enhance adhesion. If sanding is needed use 2 coats. **Newly Painted Surfaces:** Let dry 48 hours. Test as per Precautions Section (above). **Wood Surfaces:** Bare or worn wood should be cleaned and sanded. Apply 2 coats (24 hrs. between coats).

Concrete and Cement Type Surfaces: A white powdery deposit (efflorescence). Often found on concrete and masonry surfaces should be completely removed with a stiff wire brush. New concrete should set 4-6 weeks before coating. All concrete surfaces should be etche with a solution of 4 parts water to 1 part muriatic acid. Let solution soak on surface for 15 minutes before rinsing with clear water. Allow 48 hours to dry.

Porous Masonry and Cinder Block: Clean surface of loose mortar and dust. **Metal Surfaces:** Remove loose rust by wire brush, steel wool and/ or sandpaper. Clean by wiping with alcohol. Use **Chem. Lock** with rust inhibition.

Galvanized Metal and Aluminum: Surface should be wiped with xylene or ketone to remove oil and grease. A mild solution of phosphoric acid should be used for etching to assure a good bond. If acids are not available slight surface sanding will be beneficial. Use **Chem. Lock** with rust inhibition.

PRIMERS:

Previously Painted Surfaces: Self priming.

Application:

Follow surface application and mixing instructions. Stir thoroughly. Apply by brush, roller or spray. In wet state Chem. Lock goes on slightly milky but clears up in 30 to 40 minutes @ 70° F.

Brush: Use soft brush.

Roller: Use rollers with 3/8” firm nap.

Spray: For best results use airless spray, or pressure pot system. Be sure to use proper tip size. Consult spray equipment manufacturer for recommendations.

COMPONENTS:

Two – Component A – (1 Gallon) and Component B – (25 fluid ounces in a quart can).

MIXING RATIO: By Volume – 1 (Component A – gallon) to One (Component B – 25 fluid ounces).

MIXING 1. Stir Component A and Component B separately using a different clean paddle for each component.

PROCEDURE: 2. Pour 1 volume (1 gallon) of Component A into clean empty container large enough to hold both components.
3. Add 1 volume (25 fluid ounces) of component B (Hardener) into Component A (1 gallon) while under agitation. Blend only enough material for use within a two hour period. Unused portions of A and B should be resealed immediately in their respective containers.
4. Continue agitation until the two components are thoroughly mixed (3 minutes).
5. Allow to stand 20 minutes (Induction period). Then gently restir for 3 minutes then apply. Restir material at intervals of 30 minutes when using material.
6. Do not use mixed material beyond pot life limits. Component B is moisture sensitive and will react with atmospheric moisture. Part B must be sealed tightly to prevent moisture penetration.

POT LIFE: 3 to 4 hours @ 70° F. and 50% Relative Humidity. At end of pot life material becomes spongy. Pot life will be shorter under warmer conditions.

THINNING: Do not thin.

CLEAN UP: Clean all equipment immediately after use with water and Chem. Lock special solvent. Flush and clean spray equipment before material sets up.

CURING TIME: @ 70° F and 50% Relative Humidity: Set Time – 1 hour: Dries to touch – 3 1/2 to 4 hours: dry hard – over night: to recoat – 24 hours (overnight) : Full cure (maximum graffiti resistance) - 7 days. Will take longer to cure under cooler and/ or more humid conditions.

APPLICATION TEMPERATURE: Minimum 50° F and rising - Maximum 95° F The surface should be dry and at least 5° F above the dew point.

APPLICATION HUMIDITY: Relative Humidity – Maximum 80%

FINISH: High Gloss

WEIGHT PER GALLON: Mixed component A + Component B: 8.94 lbs. + .2 lbs.

VISCOSITY: 500-525 CPS

THEORETICAL COVERAGE: 328 sq. ft. per gallon (at 5 mils wet smooth surface)

SPREADING RATE: 717 sq. ft. @ 1 mil dry.

DRY FILM THICKNESS: 2.0 TO 2.5 mils per coat.

FLASH POINT: Component A - 106° F. Component B- 138° F.

SHIPPING: Paint 3. UN1263. PG III

PACKAGING: Component A (1 gallon) – 4 cans per carton.
Component B (25 fluid ounces in quart can) – 4 cans per carton.

STORAGE TEMPERATURE: Minimum 50° F. Maximum 95° F.

VOC/VOS INFO: Contains maximum 250 grams per liter.

SHELF LIFE: 12 months at recommended storage temperature.

GRAFFITI REMOVAL:

FROG SHIELD is effective as a graffiti resistant coating only if enough coating is applied to seal the surface thoroughly. **A minimum of two coats is required.** If graffiti is removed more than twice the substrate must be recoated for further graffiti resistance.

Recommended graffiti removers: Ronan #R757

1. Wash surface with detergent and warm water. Rinse with large volume of clean water. Leave surface wet.
2. Apply graffiti remover # R757 abundantly with brush over affected areas. Allow graffiti remover to stand on surface for maximum 2 minutes. Stroke affected areas gently with brush. The graffiti will be solvated and run down the surface.
3. Quickly apply water pressure or a large volume of water.
4. Once graffiti has been removed. Wipe dry. Buff surface gently to restore gloss.

TEMPERATURE RESISTANCE: Dry: Continuous 170° F. - Intermittent 200° F.

CHEMICAL RESISTANCE:

5% Glacial Acetic Acid – No Effect. 10% Nitric Acid – Slight stain.
Sulfuric Acid – No Effect. 10% Hydrochloric Acid – Very slight stain:
10% Sodium Hydroxide (24 hr. exposure) – No effect. Xylene – No effect.
Isopropyl Alcohol – No effect. MEK – 100 double rubs – 68 pencil hardness.
Glycol Ethers – 5 minute exposure – No effect.
Methylene Chloride – 3 minute exposure – No effect.
De-Ionized Water (24 hr. exposure) – No effect.
Cleveland Humidity Resistance – No effect (100 hrs).
Salt Spray Resistance – 200 hrs. – Very fine blister-@ Scribe 1/16” creepage.
Flexibility 180* Mandrel – 1/8” – no cracking.
Direct Impact – 160 in/ lbs. Reverse Impact – 160 in/lbs.
Adhesion (X Hatch) - Excellent. Pencil Hardness (1 week) – HB

CAUTIONS:

WARNING! COMBUSTIBLE LIQUID AND VAPOR. Keep away from heat, sparks, and open flame. Do not smoke. Do not breathe vapors or spray mist. Avoid prolonged contact with the skin. Close container after each use.
CONSULT MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR USING THIS PRODUCT. FOR INDUSTRIAL USE ONLY. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.

DISCLAIMER: The Technical information in this is based on. research and experience is believed to be reliable. Such information although, does not constitute a warranty. Since Far From Normal Ent.. has no control over the conditions under which the product is transported, stored, handled, used or applied. **Buyers must determine for themselves, by preliminary test or otherwise, the stability of the product for their purposes.** Factors beyond our Control prevent us from assuming damage to property or person, even when this product is applied according to directions. **In no event shall our liability exceed the purchase price of this product.**