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UT- 70/30 One Part Polyurethane

Description:

UT- 70/30 is a clear, single component, solvent based, VOC compliant sealer. It is a very hard polyurethane that offers better gloss, UV resistance and stain resistance than most other sealers. The solvent base allows the material to penetrate and adhere to concrete, porous brick & unglazed tile and most types of decorative acrylic cement coatings. **UT- 70/30** is only available in a Semi-Gloss finish.

Uses:

UT-70/30 is specified as a UV and mar resistant finish coat that can be used in moderate chemical environments and on substrates such as metal, concrete, masonry and tile. Apply up to three coats that will last 4-5 years indoors or 2-3 years outdoors (low/medium traffic area).

Advantages:

- UV Resistant
- VOC Compliant
- Excellent Adhesion
- Chemical Resistant

Coverage:

The coverage will vary depending on the surface. Up to 300 sq. feet per gallon on a smooth surface and between 200-300 sq. feet per gallon on a rough/porous surface. Do a test area to determine coverage whether or not 2nd /3rd layers are needed. Note: 2nd /3rd layers will yield more coverage than the 1st because they are not being used as a penetrating sealer but more as a coating.

Inspection:

Concrete must be clean, dry, and free of grease, paint, oil, dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80% (per ASTM F-2170). All moisture should be kept away a min. of 72 hrs before application and a min. of 72 hrs after installation. This includes sprinklers, rain, fog, dew, etc.

Before starting flooring work, test existing concrete slab to make sure there is no efflorescence or high levels of alkalinity. Alkalinity refers to a high pH reading which means the floor is not neutral. A high alkaline environment can cause salts to creep up through the cement called efflorescence. These salts have a tendency to prevent or destroy the bonding of coatings to the concrete. The most common form of testing is the use of a wide-range pH paper or tape. Make sure the floors pH reading ranges between 5-9 to ensure adhesion. The testing of concrete for alkalinity can show the amount of alkalinity only at the time the test is ran, and cannot be used to predict long-term conditions.

Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for a floor coating's installation. The calcium chloride tests should be conducted in accordance with the latest edition of ASTM F 1869, *Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride*. When running a calcium chloride test, it is important to remove any grease, oil, curing agents, etc. so accurate readings can be obtained. A rate of 3.5lbs/1000 ft²/24hr period or less is an acceptable amount of vapor pressure.

Failing to adhere to these strict guidelines can result in delamination, discoloration, blistering or all together failure of the coating system. Testing is the responsibility of the applicator. Triple-S bears no responsibility for failures due to any of the above conditions.

Surface Preparation:

If you are applying **UT- 70/30** to an acid stained concrete floor, make sure to properly neutralize the floor before applying. Neutralizing can be done with a mixture of water and baking soda (1/4 cup baking soda per 1 gallon of water) or with an Ammonia and water mixture (1 quart Ammonia per 5 gallons of water). Triple- S recommends the Ammonia/water mixture because Ammonia is a liquid and there is less risk of leaving any residue. Wet-vac or mop up the neutralized liquid.

If you are applying product to an unstained concrete floor, prepare surface by sanding, grinding or sandblasting to achieve a clean, porous and uniform surface that will allow product to soak in and bond permanently. Clean surface entirely with TSP and rinse completely with water several times. Remove mildew or algae using 50/50 blend of household bleach and water, rinse thoroughly. Allow to fully dry. *Note*: The most common reason for coating failure is due to lack of preparation. The surface must be porous/rough enough to allow the product to soak in.

Thinning:

Up to 25% acetone may be added to thin material for better absorption, increased coverage, longer working time, and to minimize bubbling.

Application:

The best and recommended mode of application for **UT-70/30** is with a sprayer. For sprayer application, use a heavy duty pesticide sprayer (i.e. Ortho) with a low volume fan (generally colored yellow). Spray as light as possible to avoid puddling and lightly back roll one time. Multiple coats can be applied **within** 24 hours of each other for added protection. Thinning with acetone will help facilitate installation in most applications.

Applying with a roller is also acceptable but not recommended. Apply as thin as possible. Apply with a 3/16 NAP Mohair roller, which has a solvent resistant core. Apply several vertical rolls next to one another and then come across the same area and roll horizontally (without using new sealer). Then move onto the next section. Apply as thin as possible.

Do not over roll. Rolling over the same area repeatedly can introduce unwanted air to the sealer and thus, result in trapped, unwanted air bubbles near the surface of the cured **UT-70/30**. This is over rolling. **Do not over roll**.

Applying with a roller is not recommended because despite ones best efforts to apply thin coats, certain floors do not allow **UT-70/30** to go on as thinly as needed. A broom finished floor for example, is not a smooth surface and as a result, contains uneven parts. When applying **UT-70/30** with a roller, the 'hills and valleys' of the concrete floor make for a difficult surface to apply a thin coat. The 'valleys' may take on too much **UT-70/30** and this can lead to unwanted air bubbles and/or whiteness. If air bubbles form, try and thin out the still tacky sealer with a clean roller.

For added protection, multiple coats of **UT-70/30** can be applied. If applying multiple coats, apply all coats **within** 24 hours of each other for proper adhesion. **Always apply thin coats.** The 1st layer penetrates the concrete & the 2nd and 3rd layers will provide more of a coating. Please note: if you want a thick coating, use **THIN** layers on top of one another rather than one thick layer. Thick applications of **UT-70/30** can result in whitening or opacity to sealer requiring sanding and/or grinding for removal. Always apply thin coats; **thick coats are NOT RECOMMENDED.**

Drying Time:

2nd and 3rd coats must go on within 24 hours of the previous application to insure proper adhesion. If existing coating has been cured for longer than 24 hours, sand the surface with 80 grit sand paper, remove debris and wipe with acetone just before new application. Allow 6-8 hours before light foot traffic or recoating. Normal traffic may be permitted after 48 hours. Allow 72 hours before placing heavy objects on the surface. Allow at least 72 hours before contact with water (7 days recommended). This includes sprinklers, rain, fog, dew, pool water, etc. Allow 7 days for vehiclular traffic.

Handling Precautions:

Material is flammable. Extinguish all flames, pilot lights and electric motors until all vapors are gone and the coating is hard. The vapor is harmful. Use only with adequate ventilation and/or appropriate cartridge type respirator. Avoid contact with skin and wear protective gloves. Read Material Safety Data Sheets before using.

Slip and Fall Precautions:

Triple- S Chemicals recommends the use of slip–resistant aggregate in all coating or flooring that may be exposed to wet, oily or greasy conditions. These aggregates can be incorporated into the materials using different methods to achieve varying profiles and degrees of slip-resistance. However, even textured surfaces can be slippery under certain conditions. Triple-S Chemical Products, Inc. will not be responsible for injury incurred in a slip and fall situation. It is the end users' responsibility to provide for their own safety and to determine the suitability of these coatings for their particular application. The best way to apply the grit is to 'sandwich' it in between layers of **UT 70/30**. Triple- S does provide slip-resistant aggregate ('grit') for a minimal charge; 2-3 ounces by weight is the recommended amount of grit per gallon of **UT 70/30**.

Limitations:

- Do not apply in temperatures below 55°F or above 90°F.
- Do not apply unless temperature is 5° above the dew point or if rain is expected within 24 hours.
- Do not apply on damp or moist surface as it will whiten and may cause delamination.
- Surface will become more slippery.
- Apply a test area before starting actual job.

Clean Up:

Uncured material can be removed with acetone or similar solvent**.**

Technical Data

V.O.C.	< 100 grams/liter
Weight/gallon	8.0 lbs.
Weight Solids	30%
Viscosity @ 77° F (Brookfield)	30-40 cps
Dry Time @ 77° F	3 hrs.
Direct Impact	140 inch-lbs.
Reverse Impact	40 inch-lbs.
Pencil Hardness	2H
Taber Abrasion, CS 17 Wheel, 1000g load, 1000 cycles	8.4 mg loss
Four Hour Spot Tests	
IPA	No Effect
MEK	No Effect
Toluene	No Effect
50% Sodium Hydroxide	No Effect
50% Phosphoric Acid	No Effect
Aniline	Stain Only
50% Sulfuric Acid	Stain Only
37% Hydrochloric Acid	Lifting
100% Acectic Acid	Failure