



5050 PolyTop High Performance Concrete Countertop Polyurea Installation Guide

PRODUCT DESCRIPTION

5050 PolyTop will provide a clear seal coat that will provide gloss and abrasion resistance like none other. The 5050 is designed to be used over concrete countertops. Use 5050 when a high gloss/high build finish is required. 5050 is a non yellowing product which makes it suitable for use inside or outside. 5050 is very heat resistant and is ideal for Kitchen Concrete Countertops.

PRODUCT COMPOSITION

5050 PolyTop – a high solids 2 component clear Polyurea topcoat that exhibits great chemical and excellent wear resistance while providing a deep high gloss surface.

COVERAGE RATES AND PACKAGING

5050 POLYTOP 100-150ft/Kit per coat Sold as Half -Gallon Kit

SUBSTRATE REQUIRMENTS

Concrete Countertop

Concrete shall be structurally sound and stable. Concrete shall be free of dust, dirt, grease, contamination, surface laitance, and other potential bond-breaking substances that could impair adhesion. All cracks, gouges, and other surface defects need to be addressed prior to coating installation. Substrate and ambient temperatures must be above 50°F (10°C) during installation of coating. Relative humidity should not exceed 80% during installation of the coating. Environmental conditions must not be near the dew point during installation of the coating. Moisture Vapor Transmission of the substrate must not exceed 5lb per 1000 ft² per 24 hours. For high MVT substrates, consult with a Versatile Building Products representative for recommendations.

Other Substrates

Versatile Building Products only recommends its 2 component products for use over concrete. All other substrates are done at the users own risk.

STEP 1) SURFACE PREPARATION

Concrete

Pour water onto the concrete surface. Inspect area to see if water penetrates concrete (concrete will darken). If the concrete allows water to penetrate then proceed to clean the surface using V-100 concrete cleaner degreaser. Since most concrete countertops are of a decorative nature we must rely on the porosity of the concrete since mechanical preparation would be damaging. If unsure of surface condition then test a small area to see if it darkens and penetrates when a small amount of 5050 is used. If diamond polishing the concrete surface, we recommend not to exceed the 400 grit resin pads.

STEP 2) INSTALLATION OF 5050 POLYTOP

Note: Material has a pot-life of 120 minutes based on an insulated 200 gram mass at a starting temperature of 77°F. Unlike epoxy, the 5050 PolyTop will have a longer potlife if the material is left in the pail so pour out what will be needed only as needed. ***Expect a 45 minute potlife when working with a quarter gal mas at normal temperature. Warning: Large masses of mixed and/or heated material will have a shorter pot-life.*** 5050 Polytop can be thinned with MEK or Xylene when using HVLP spray guns. When thinning the product we recommend several thin coats be applied to achieve adequate film thickness & durability.

Preparation

- Shut off all sources of ignition prior to work and ground all equipment throughout the sealing process.
- Supply auxiliary ventilation as necessary to produce a safe working environment.
- This material causes light headedness, use a NIOSH approved carbon filter respirator capable of filtering organic vapors.

Mixing

Use 3 bucket mixing: Using a jiffy-type mixing blade at a minimum of 700 rpm, mix according to ratio listed on label of the 5050 PolyTop A-Component with 5050 PolyTop B-Component for two minutes. Mix for two minutes and transfer mix to a second mixing vessel and mix for an additional minute (transferring to a second mixing vessel prevents unmixed components clinging to the sides of the first mixing container from being poured onto the countertop.) Be careful not to mix to more than what is needed for the first coat since two coats will be necessary.

Application

First Coat

DO NOT APPLY AT HOTTEST TIME OF THE DAY OR SMALL BUBBLES MAY OCCUR FROM OUTGASSING.

Rolling / Brush technique: It is best to apply 5050 as the temperature is dropping or when temperature are at a constant level between 50-80°F. Be sure that the area is as dust free as possible, this is a very high gloss product and it will show every speck of dust. Just prior to application, wipe surface with a tack rag to remove any remaining dust. Begin by cutting-in the edge with a brush or roller. Be sure to use a brush that does not loose hair and a roller that will not release lint or hair. Take care to avoid drips or runs of the material, it is typically very thin for the first 5-8 minutes and then it achieves a thicker viscosity for the remainder of potlife. Drips usually occur on the vertical edges or when applying to thick near an edge where the material can run down a low spot over the side. Pour a band of the mixed 5050 PolyTop material out onto top surface of counter and begin rolling with a 1/4-3/8" nap roller, squeegee with a hand squeegee or brush on using a brush. Use mohair or other type of lint free rollers. Work the material evenly to a wet film thickness of 2-3 mils (200-300-ft/gallon-- 100-150-ft/ kit). Be sure to back-roll immediately to minimize the chances of entraining air in wet material which may cause bubbles. Do not allow the material to puddle. Also do not lay off or back roll more than 5 minutes after initial application or it may be noticeable as a brush mark, roller lap, etc. This is due to the material setting up to the point where it will no longer flow and level. Allow PolyTop to dry to a slightly tacky state before proceeding to the next step.

Spray technique: Use a solvent resistant pump sprayer @ 40-50 psi of pressure or HVLP sprayer with the desired tip. Typical use is to thin the 5050 Polytop with MEK or Xylene @ one part mixed 5050 to 1 -2 parts MEK or Xylene. Generally the 1st coat is thinned @ 1 to 1 and second coats @ 2 to 1. Be sure that no floating dust is present & the surface is clean. A wipe down with denatured alcohol is recommended, prior to spraying. (Note: The recoat time in between coats varies on ambient temperature. Hot climates dry faster. 2 nd coat should be applied while the 1st coat is slightly tacky. If you miss this window, sand the surface w/ 150 0 220 grit sand paper.)

Second Coat

Sometimes bubbles may occur in first coat due to out gassing of moisture vapor rising from within the concrete slab. Sand down any bubbles or other blemishes before applying the final coat. Follow same mixing procedure as above while maintaining a dust free environment. Apply second coat over the first coat 2-5 hours after the application of first coat. Work the material evenly to a wet film thickness of 2-3 mils (25-ft/gallon). If coating more than 12 hours later then the surface should be sanded lightly. This will de-gloss the finish and cause micro-scratches in the coating creating tooth for the second coat of 5050. Allow PolyTop to dry for at least 24 hours before light use and take great care while it reaches it maximum cure which occurs in 5 days.

Pilot lights and surrounding sources of ignition may be put back into service once solvent vapors have dissipated to a level below the lower explosion limit. Typically, this will take 3-6 hours after the installation with adequate ventilation.

Clean Up

Immediately cleanup splatter marks and tools with Acetone. Clean hands and exposed skin with mild soap and water, and/or citrus based hand-cleaner.

ADDITIONAL CAUTIONS AND RECOMENDATIONS

- Do not force dry any components of the system.
- Coverage rates may vary.
- Mask all areas that need protection.

- Always wear protective clothing and equipment as required by OSHA and as needed for good safety practices.
- Read Material Safety Data Sheets before commencing work.
- Be sure to cross-roll and back-roll the topcoats to ensure a uniform coat.
- Do not allow material to puddle.
- Use accelerators when installing in cold climates or the return to service time needs to be fast tracked.
- Turn off all sources of ignition if working with 5050 PolyTop topcoat.