



5073 POLYUREA Installation Guide

PRODUCT DESCRIPTION

5073POLY UREA is a general clear polyurea topcoat that exhibits great chemical and excellent wear resistance while providing a deep high gloss surface. 5073 POLYUREA is designed for use over concrete and epoxy to protect against wear and chemical attack, for other various substrates it is recommended that a test area be done first to check adhesion and performance.

COVERAGE RATES AND PACKAGING

5073 Poly Urea

Over Flat Surface at an Average of 3.3 Mils

375 ft/Gal - 750 ft/Kit

Sold in 2-Gallon Kit or
5 Gallon Bulk

Over Flake (more surface area) at an Average of 4.9 Mils

225-250 ft/Gal – 450-500/Kit

5073 10 Gal Kit (Covers 2500 sq ft per 10 Gal kit)

SUBSTRATE REQUIRMENTS

Concrete

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 35°F during installation of coating. Relative humidity should not exceed 65% 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 3lb per 1000 ft per 24 hours. For high MVT substrates, consult with a Versatile Building Products representative for recommendations. Concrete must be mechanically profiled and prepared by shot-blasting, grinding, water-jetting, or other means of scarification to produce a Concrete Surface Profile (CSP) between #2 and #4, according to International Concrete Repair Institute (ICRI) Guideline No. 03732

Concrete Priming

Under most conditions concrete shall be primed with an approved primer (4001, 4100 or 5205) if applying 5073 Poly Urea directly over it. Be sure that 4001 or 4100 primer are screened or sanded before applying the 5073 if it has been dry for more than 2 hours. When using 5205, allow the 5205 to dry to a slightly tacky state before proceeding to topcoat with 5073 (no more than 30 minutes). It is ok to walk on the tacky 5205 with spikes, any slight scratching will blend in when topcoated with 5073. If the floor goes beyond tacky and is hard then it will need to be sanded to scuff it up so the 5073 will stick to it. Remember this 5205 system is designed for speed so don't take a long break after applying the 5205. You can also use a fingernail test; if it is fairly difficult to leave a fingernail imprint then you must sand or screen the surface before applying the 5073.

Consult VBP for further information.

Other Substrates

VBP does not recommend 5073 to be used over substrates other than concrete or cementitious overlays manufactured by VBP. If going over sealed surfaces like polymer stains or other types of sealer, be sure to lightly sand the surface to de-gloss it. Then do a small sample area to check the adhesion before proceeding (do a cross hatch test). If going over non concrete surfaces you must do a mock up sample to test it on actual material and understand that it is being done at "your own risk".

STEP 1) INSTALLATION OF 5073 POLY UREA

Note: Cure time is effected by environmental conditions. Do not force dry. High humidity and/or low temperatures can cause haziness and blushing in the coating. Material has a pot-life of 54 minutes based on a 2 gallon mass at a starting temperature of 75°F. **Warning:**

Large masses of mixed and/or heated material will have a shorter pot-life.

Preparation

- Shut off all sources of ignition prior to work, and throughout the sealing process.
- Supply auxiliary ventilation as necessary to produce a safe working environment.
- Use a NIOSH approved respirator capable of filtering organic vapors.

Hot Weather Tips

5073 has a shorter pot life in very hot conditions. Keep core temperature of 5073 below 80 degrees whenever possible; if it is above 80 degrees bring core temperature down by icing (do this hours before doing job so the core temperature is lowered) or placing in a cool environment the day before application. If instructions are not followed excessive heat may cause outgassing, foaming and hazing of 5073 where it has been applied too thick or where material settles into joints, etc. as well as a shorter pot life. To reduce the effects of outgassing, install when the temperature is dropping from the highest temperature of the day.

Cold Weather Tips

Accelerator 50 may be used to speed the cure of 5073 at lower temperatures. Also, allowing extra induction time of mixed material in the container will also help speed the cure, however this should only be done by experienced applicators.

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Mixing

Material should be at room temperature (70-75 degrees) or below if in extreme hot conditions. Mix 5073 POLYUREA A-Component with 5073 POLY UREA B-Component at ratios listed on container for 2-3 minutes using a jiffy-type mixing blade at no less than 400rpm. Transfer mixed material to a second mixing vessel and mix an additional 30 seconds to ensure that material along the sides of the first mixing vessel have been properly incorporated into the mixture. **Caution: If you are not familiar with the product, Do Not Mix More than 2 Gallons at a Time. The more you mix the shorter your pot life will be. This is a 2-component product be sure to mix thoroughly.**

Application

Apply mixture to the substrate using a brush, roller, or squeegee at a desired coverage rate. Do not apply at rates less than 175 sq. ft. per gallon or out gassing bubbles may occur. Use spiked shoes when walking into wet material. Because 5073 has such high gloss, be sure to remove dust from areas during application. Recoat time for 5073 is 2-3 hours. If this window is missed, sand the 5073 surface with 150 grit paper or use a floor buffing machine with the green or black screen pads.

Cure Times

Coating can typically accept light foot traffic in 4 hours, vehicular traffic with pneumatic tires in 24 hours. Full cure occurs in 5-7 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 8-16 hours after floor installation with adequate ventilation.

STEP 2) CLEANUP

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

ADDITIONAL CAUTIONS AND RECOMENDATIONS

- Keep mixed material in pail to achieve maximum working time (this only applies to 5205 & 5073) instead of pouring bands on the floor.
- Do not apply at less than 175 sq ft per gal or excessive moisture entrapment may occur in wet film
- Because 5073 has such high gloss be sure to remove dust from areas during application.
- When going over solid color surfaces be sure to backroll immediately and keep back rolling to a minimum which will help control micro bubbles.
- Do not force dry
- Coverage rates may vary
- Mask all areas that need protection
- Always wear protective clothing and equipment as required by OSHA and as necessary
- Read Material Safety Data Sheets before commencing work
- Store material at 50-70°F to prevent shortened pot-life due to excessive heat
- 5073 is combustible