



WB Urethane Data Sheet

Part # WBUG, WBUS

DESCRIPTION: Concrete Solutions® WB Urethane is a water-based, high solids, two component aliphatic polyurethane. It provides a high performance clear coating over exterior or interior surfaces. It dries to a hard, durable film that has excellent resistance to impact, abrasion, and weathering. WB Urethane offers substantial performance improvements over first generation catalyzed water-based polyurethanes, including higher film build capabilities, improved chemical resistance and resistance to hot tire staining.

TYPICAL USES: WB Urethane can be used for any application where a solvent based urethane would be used, where a low odor is desired. One of its uses is as the topcoat sealer over our low odor Color Flake System that includes: Epoxy 200 as the prime coat, WB Epoxy Color and flakes as the intermediate coat, Sealcoat 1000 as a primer over the flakes and one of two coats of WB Urethane as the topcoat. It is the ideal low odor topcoat for areas that require maximum gloss retention, ease of cleaning, and resistance to heavy traffic. (It is also available in a satin finish). Typical areas of application include: clean rooms, hospitals, concrete counter tops and high traffic retail areas. It is also suitable for aircraft hangars, automotive repair facilities and garage floors. WB Urethane makes an excellent water-based topcoat sealer over Sealcoat 1000 or WB Epoxy Clear when doing decorative acid stained or dyed concrete floors (see application instructions below).

FEATURES & BENEFITS:

- High build capabilities
- VOC compliant
- Non-yellowing, non-caulking, non-blushing
- Available in a satin or gloss finish
- Excellent chemical resistance
- Easy application
- Can be applied by brush, roller or airless sprayer

CHEMICAL PROPERTIES:

Result

Solids by Weight	53% (clear)
Volatile Organic Compounds	0.42 lb/gal (50 g/l)
Mix Ratio, Parts per Volume	2A (iso) : 1B (resin)
Pot Life	50 min
Recoat	12 hrs
Dry to Touch at 77°F (25°C)	6 hrs
Walk on Time (light foot traffic)	18 hrs
Return to Service Time (vehicle traffic)	48 – 72 hrs
Full Cure	7 days
Coverage Rate per Gallon	200 – 400 sqft (4.9 – 9.8 sm/l)
Recommended Application Temperature	≥50°F (10°C)
Odor	low
Color	clear

TYPICAL PHYSICAL PROPERTIES:

Test

Result

Hardness: -pendulum	ASTM D-4336	175
Taber Abrasion Resistance (mg of loss/1000 cycles) CS17 Wheel; 1000 grams weight	ASTM D-4060	39
60° Gloss		90

MOISTURE VAPOR TESTING: All concrete floors not poured over a proper moisture barrier, are subject to possible moisture vapor transmission or hydrostatic pressure problems which can cause a coating system to blister or fail. Before applying a coating system over a concrete floor which is on-grade or below grade, the customer should be informed of this potential problem and given the option to have a qualified moisture testing company perform calcium chloride test to give the proper recommendations.

SURFACE PREPARATION: The surface must be clean and sound, free from oil, dirt, waxes and any other contaminants that may interfere with bonding. One method includes scrubbing with detergent, acid washing, neutralizing and pressure washing to clean and rinse. Previously coated surfaces must be mechanically cleaned and abraded using a floor polisher machine with #80-100 grit sandpaper to insure intercoat adhesion. [See the Products Manual under surface preparation for more detailed information.]

CONCRETE SOLUTIONS® WB URETHANE (continued):

MIXING INSTRUCTIONS: Mix only the amount of material that can be used within a one hour period at 77° F (25° C). Higher temperatures reduce work time. In hot weather, it is advisable to mix smaller batches. Premix A before adding B. Mixing ratio is 2 parts A to 1 part B. Add part B slowly while mechanically mixing part A with a slow speed drill. Mix for 3 full minutes until completely homogenized. Material cannot be properly mixed by hand. Use a small one-gallon mixing paddle for mixing small amounts. WB Urethane is normally applied as is but may be thinned up to 10% with water to achieve a lower viscosity, if desired. Only add water after A and B have been mixed together. Pour through a paint strainer after mixed and prior to use.

APPLICATION INSTRUCTIONS: Apply at 200 – 400 sq. ft. per gallon by brush, roller or airless sprayer. Do not allow to puddle or accumulate in joint areas. Applications heavier than 200 sq. ft. per gallon will create bubbles in the cured coating. If multiple coats are required, and the material has cured for more than 24 hours, de-gloss with a black janitorial pad or fine 100 grit sanding screen.

Over Acid Stain and Dye Instructions - If applying over an acid stained surface the substrate must be neutralized and rinsed and Sealcoat 1000 or WB Epoxy Clear must be used as a primer. WB Epoxy Clear is not recommended over green or blue acid stains, as it will change the color. Earth-tone colors such as tans, browns and black are okay. WB Epoxy Clear can be used over all concrete dye colors and is only for interior floor applications. Sealcoat 1000 can be used indoors or outdoors as a primer over acid stains or dyes prior to applying WB Urethane gloss or satin. Apply Sealcoat 1000 using an Airless or HVLP sprayer to achieve the best results. Do not apply using a roller over acid stains or dyes. Whenever odors can be tolerated, solvent-based sealers such as Stamped Concrete Sealer or Acrylic Urethane are generally better over acid stains and dyes to bring out the color of the stain or dye. Our compressor pump-up sprayer or an airless or HVLP sprayer is also recommended to achieve the best finish when applying solvent-based sealers.

Over Color Flake Applications - Apply Epoxy 200 prime coat and allow to dry for approximately 12 – 15 hours or until dry enough to walk on. Slightly tacky is okay. Apply WB Epoxy Color and broadcast flakes to refusal. Allow 4 hours to dry or until dry to touch. Sweep and blow off loose flakes to re-use later. Lightly scrape the color flake surface using our metal edge squeegee and blow again. These flakes should be thrown away. Next apply one to two coats of Sealcoat 1000 as a prime coat over the flakes. Apply WB Urethane as the final topcoat. This system will leave the surface with a bumpy flake texture for extra slip resistance.

CHEMICAL RESISTANCE (ASTM D-1308) 24 HOUR IMMERSION:

Motor Oil	no effect	Mineral Spirits	no effect
Gasoline	no effect	Hydraulic Fluid #83282	no effect
Brake Fluid.....	no effect	Skydrol B-4	no effect
Transmission Fluid	no effect	Whiskey.....	no effect
Urine	no effect	10% Hydrochloric Acid.....	no effect
Blood	no effect	10% Sulphuric Acid.....	no effect
Black Ink	no effect	50% Sodium Hydroxide	no effect
Xylene	no effect	10% Acetic Acid	no effect
MEK	no effect		

COLOR OPTIONS: Clear

HOW SUPPLIED: WB Urethane is packaged in 1.5 gallon and 3 gallon kits in either gloss or satin finish.

SLIP/FALL PRECAUTIONS: Concrete Solutions recommends using slip resistant granules in all outdoor applications where the WB Urethane will be used as a topcoat sealer and on indoor applications that may be exposed to water, oil or other spills that may cause a slippery environment. Aluminum oxide granules #80 grit or courser may be broadcast into the prime coat to achieve the amount of slip resistance desired. It is the end user's responsibility to determine the suitability of a coating for their particular application. Concrete Solutions or its sales people will not be responsible for injury incurred in a slip/fall accident.

SAFETY PRECAUTIONS: Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS)

Chemical systems require the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

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