



# SYSTEM 9

## HIGH BUILD EPOXY FLOOR COATING WITH ADDITIONAL CHEMICAL & UV RESISTANCE

PRIMER: NORKLAD WB EPOXY    BASECOAT: NORKLAD 200 - 100% SOLIDS EPOXY COLORCOAT  
COLOR CHIPS: LIGHT, MEDIUM, OR HEAVY COVERAGE    TOPCOAT: NORKLAD 100 - 100% SOLIDS  
EPOXY    ADDITIONAL UV / CHEMICAL RESISTANCE: HPU 747 CLEAR URETHANE

**PATCHING:** Patching pits and divots (optional) is the first step of the process. Remove loose aggregate and repair voids. Fill pits and pock marks by using a patching compound or mix your 100% solid with sand (or cabosil) to achieve a thick 'peanut butter' thickness to trowel into the voids. Wait 12-24 hours for compound to fully cure before etching your concrete. Joints should be filled with a self-leveling joint sealant. Fill partially and allow to cure a minimum of 24 hours before coating with epoxy.

**SURFACE PREPARATION:** Concrete Surfaces: All surfaces must be sound, dry, clean and free of oil, grease, dirt, mildew, form release agents, curing compounds, efflorescence, loose and flaking paint and other foreign substances prior to applying your first coating. Remove laitance and roughen unusually slick poured or precast concrete as well any oil, grease, and dirt by using mechanical means (shot-blasting or diamond grinding). Etching the concrete allows the primercoat epoxy to adhere securely. Previously Painted Surfaces: Acid etching is not necessary when recoating existing paint /epoxy. Old coatings should be tested for lifting. If lifting occurs, remove the lifted coating. Scuff / sand glossy areas and aged epoxy coatings. After the floor is dull or has a texture to it, clean with TSP or alternative and apply the basecoat epoxy. You would still need to use the Primer in this instance.

**PRIMING WITH NORKLAD WB:** Using the Norklad WB waterborne epoxy as a primer will improve the effectiveness and efficiency of the coating by penetrating and sealing the concrete plus providing an additional bonding agent for your basecoat; improving the longevity of the system. Also, by using a primer for your 100% solids topcoat, you eliminate the risk of outgassing. Outgassing occurs when the air from underneath the slab rises and tries to move through the coating and gets trapped, forming blisters on the surface. By priming the surface with a low-viscosity primer, you seal off the slabs ability to breathe and trap any air escaping into the next coat. **MIXING:** The entire contents of each container (part A and part B) must be mixed together. Add the converter portion to the base portion slowly with continued agitation. Once the two components are mixed you have 1.5

hours to use it. The Norklad WB has a very low viscosity (much like thicker wall paint) so usually one gallon will coat over 250 sq ft. It should be applied in one thin, wet coat sufficient to completely cover and penetrate the surface. It may dry/soak in at different levels and leave the substrate "blotchy". This is normal. The thickness of the primer and porosity of the substrate will vary. After it has been applied, you can wait until you can walk on it (generally 7-10 hours) before you apply the basecoat. Note: Maximum Recoat window on Norklad WB is 7 days.

**NORKLAD 200 MIXING INSTRUCTIONS:** Do not apply over wet surfaces or under very humid conditions where condensation or fog could settle on the coating during the cure process. Once you are ready to coat make sure you have a bucket to mix your epoxy. The proper ratio of material (Norklad 200 Part A and Norklad 200 Converter) must be mixed together in a separate container. The mix ratio of the Norklad 200 is 2 parts A to 1 part of B. Mix both portions first using an electric mixer or by hand to obtain a smooth, homogeneous condition. Then pour Part A into your bucket (5-gallon bucket preferred), adding the converter slowly with continued agitation. After the converter add is complete, continue to mix. You want to make sure you thoroughly mix the 2 components together (usually 5-7 minutes). Scrape the sides of the bucket to ensure every portion of material is mixed together. Now the mixed material is now ready to pour onto the substrate. Note: DO NOT LEAVE MIXED MATERIAL IN THE BUCKET IT FOR LONGER THAN 20-30 MINUTES OR IT WILL HARDEN. Inexperienced applicators should only work with a gallon and a half at a time. Once the material is on the floor and spread out it will take much longer for it to harden (up to 60 minutes). Higher temperatures will reduce working life of the coating; lower temperatures will increase it.

**APPLYING THE NORKLAD 200:** After material is thoroughly mixed, start painting in the corner furthest away from the exit of the room. If you have a lot of "cutting-in" around objects in the floor (poles, etc), have a separate installer use a 3" chip brush to cut in. If the project perimeter is squared, you can use the squeegee to push the material to the walls and forego the time-consuming task of cutting-in. Use a good quality squeegee to spread material on floor surfaces away from the wall. Pour a small amount of mixed epoxy directly onto the floor within your cut-in area, and gently and evenly spread the epoxy with your squeegee across the entire area that has been cut in, leaving any excess material at the leading edge to be utilized in your next section.

Gently backroll the entire wet area with a roller ( 3/8" or ¼") to further promote even coverage. If you are working with 1.5 gallon batches of mixed material, make sure you do not exceed your coverage area to prevent spreading the material too thin. (for example: to apply the material 100 sq/ft per gal – optimal thickness. Mix a gallon and a half of material and spread 150 sq/ft onto the floor. Mark off what 150 sq/ft looks like onto the primer with chalk if needed for reference.) **Recommended Coverage:** 100-125 Square feet per gallon (at 12-18 mils thick) over **primed** concrete, when squeegee applied. **Dry Time:** At 70°F dries to recoat with epoxy or urethane in 10-16 hours and dry hard in 2-7 days.

**APPLY YOUR COLOR CHIPS** by walking on top of the newly backrolled Norklad 200 with spike shoes. After you have painted a large enough area begin to apply the chips. Chips are applied by tossing them upward toward the ceiling allowing them to float down into the wet basecoat. (we recommend dispersing the chips in a “feeding the chickens” style toss; using only three fingers to take a pinchful of chips at a time and launching them into the air at an upward angle, allowing the chips to float down into the wet coating). It will take several hours for the material to start to tack up so you have plenty of time to broadcast your chips evenly. If you broadcast too much in one area, you have to match the entire floor to that spot so take your time and do a little at a time. Continue painting approximately 6 foot wide sections and tossing chips until entire floor is complete. Since everyone’s idea of medium and heavy chip coverage can be different, it’s important to make sure you don’t run out of chips before the end of your job.

It’s best to use a little less chips onto the floor than what you generally want, that way you when you reach the end of your floor you can apply what chips have left and give the floor a much more dense appearance. To achieve a uniform chip coverage utilize the spike shoes. Wearing spike shoes will grant you the ability to walk overtop the wet epoxy. By walking across the wet epoxy as you roll it out you can paint large areas and go back, or walk over to areas not completely covered and sprinkle more chips to make a more uniform appearance. Note: be careful not to drop chips in handfuls directly down onto floor, once chips are placed they cannot be moved, but they can be painted over and re-chipped if you make a mistake.

**NORKLAD 100 – CLEARCOAT** Application. Use the same methods of mixing as well as application as described above for the Norklad 200 – Colored 100% Solids epoxy. Wait 8 – 12 hours before starting the Clear Urethane Coating.

### **(Optional) CLEAR URETHANE / HPU 747 APPLICATION:**

The High Performance Urethane option is a thin rubber membrane that will provide additional chemical resistance, scratch resistance, and UV-resistance to your floor. . Our High Performance Urethane clearcoat is a flammable liquid and very fumous, therefore it is recommended to wear a OV respirator. Make sure area is well ventilated while applying and leave bays open while curing. Once ready to apply topcoat (at least 8-12 hours after the Norklad 100 is applied – or until it is no longer tacky – NO LONGER THAN 24 hours), mix Part A (1-gal) and Part B (.5 gallon) together (equals one and half gallons). Our High Performance Urethane (HPU) is a two-component product. The entire contents of each container must be mixed together. It is important that all mixing equipment is free of moisture and that moisture does not contaminate the coating. Mix the base portion to obtain a smooth, homogeneous condition. After mixing the base portion, add the converter slowly with continued agitation. Mix thoroughly. The pot life of the mixed material is 3 hours at 77° (25°C). Higher temperatures will reduce working life of the coating; lower temperatures will increase it. Roll one even coat of HPU over entire surface to be coated with 3/8" nap roller. When applying topcoat walk on previously applied Norklad 100 with clean shoes or socks only, any dirt or debris tracked on to coating. Dry Time: Dries to light foot traffic on concrete floors in 14-24 hours.

CLEAN-UP: Clean brushes rollers and equipment with Xylene. Clean up primer with Soap and Water.

HELPFUL HINTS: *TEMPERATURE:* Must be in the range of 50-90 degrees Fahrenheit. Applying this product in cold climates will not affect the protective properties, however, it will double your drying / curing times. *COVERAGE:* Before beginning the application, keep in mind that Norklad 200 can be applied anywhere from 10mils to 30mils thick. At 30mils thick it will cover 50 sq/ft. per gallon, at 15mils thick it will cover 100 sq/ft. per gallon, at 10mils thick it will cover 150 sq/ft. per gallon, and so on. Section off the work area to know exactly how far each gallon needs to go to get the desired coverage evenly. *MIXING:* Improper mixing may result in product failure = Any portion of the epoxy Part A NOT mixed with the Part B will never cure). Mix thoroughly. The more material in the mixing bucket the shorter the potlife.

**We usually recommend a two to three day process:** Day 1: prep the surface and apply primer Day 2: Squeegee and Backroll the Norklad 200 and apply chips. Day 3: Apply the Norklad 100 Clearcoat. Day 4: Apply the High Performance Urethane. Day 5: you will be able to walk on the coating. If it highly recommended to not allow more than 20-24 hours between coats to ensure you don’t have to sand between coats.