



TWO COMPONENT NOVOLAC OVERLAYMENT

**GENERAL PRODUCT DESCRIPTION**

NovoKote HB (High Build) is an advanced high performance novolac, two-component overlayment and coating system. It is one of the highest chemical resistant coatings in the industry today. It is generally applied between 1/16" and 1/4" with silica. NovoKote HB is the product of choice for jobs with the harshest chemical conditions. Advantages:

- Self-priming
- Resin Rich
- 100% Solids, V.O.C. Compliant
- Nonporous
- Seamless flooring system
- Essentially odorless
- Four times harder than standard concrete
- Withstands heavy forklift traffic
- Chemical and solvent resistant
- Able to be applied over damp concrete

**INDUSTRIAL APPLICATIONS**

- Chemical Flooring
- Aerospace
- Chemical Storage
- Power Plants
- Trench and sumps
- Hazardous Waste Storage
- Waste Water Treatment
- Plating
- Secondary Containment
- Battery Charging Areas

**PRODUCT DATA**

Volumetric Ratio: 3 to 1  
 Solids: 100%  
 Application Temperature: 65-90°F and 5° above the dew point  
 Thinning: Not required  
 Pot Life: 10-20 minutes  
 Working time on floor: 15-30 minutes  
 Cure Time: 6 hours (walking) 18 hours (traffic)  
 Critical recoat time: 24 hours  
 Shelf life: 12 months  
 USDA Food and Beverage: Meets requirements

**PHYSICAL PROPERTIES**

| PROPERTY                    | VALUE                                   | REFERENCE                   |
|-----------------------------|---|-----------------------------|
| Compressive Strength        | 23,000 psi                              | ASTM C 579                  |
| Flexural Strength           | 16,300 psi                              | ASTM D 790                  |
| Tensile Strength            | 11,800 psi                              | ASTM D 307                  |
| Bond to Concrete            | 350 psi<br>concrete fails at this point | ASTM D 4541                 |
| Taber Abrasion              | Loss/1000 Cycles=<br>87 mg              | ASTM D 4060<br>CS 17 Wheels |
| Water Absorption            | .10% maximum                            | ASTM D 413                  |
| Linear Shrinkage            | .01% maximum                            | ASTM C 531                  |
| Flammability                | Self-extinguishing                      | ASTM D 635                  |
| Impact Resistance           | 16 ft. lb. - no failure                 | Mil-D-3134H                 |
| Coefficient of Friction     | .6 minimum                              | ASTM D 2047                 |
| Hardness, Shore D           | 85                                      | ASTM D 2240                 |
| Porosity on unglazed finish | .00                                     | NACE Stand<br>TM-01-74      |

**CHEMICAL RESISTANCE**

|                    |    |                       |    |
|--------------------|----|-----------------------|----|
| Acetic Acid        | NR | Hydrochloric Acid 37% | R  |
| Alcohol, Ethyl     | NR | Nitric Acid 30%       | SS |
| Alcohol, Isopropyl | SS | Phosphoric Acid       | SS |
| Aluminum Hydroxide | R  | Skydrol R             | R  |
| Citric Acid        | R  | Sodium Bisulfate      | R  |
| Copper Chloride    | R  | Sodium Chloride       | R  |
| Diesel             | R  | Sodium Hydroxide 50%  | R  |
| Ferric Acid        | R  | Sulfuric Acid 98%     | R  |

Note: The above guide is based on seven days exposure of the listed chemical at 72 degrees F (22 degrees C)  
 Key: R = Recommended, SS = Splash and Spill, NR = Not Recommended.  
 Above chart serves as a guideline only. Samples will be furnished upon request for testing.

# NovoKOTE HB

## NONPOROUS RESIN RICH TECHNOLOGY

Conventional trowel down epoxy-clad systems are porous. Once the seal coat is breached, the porous epoxy mortar, being sponge-like, draws surface liquids and chemicals into it. This eventually causes an epoxy overlayment failure. NovoKote HB is nonporous, using twice the resin in the base overlayment as its clad counterpart.

## COVERAGE

Standard nominal floor thicknesses are: 45-50 mil, 1/8", 3/16", and 1/4". Use chart below for determining required gallons.

| Thickness:  | Gallons in 1 S/F | Gallon in 100 S/F |
|-------------|------------------|-------------------|
| 45-50 Mills | .01              | 1                 |
| 1/8"        | .0286            | 2.86              |
| 3/16"       | .0429            | 4.29              |
| 1/4"        | .0572            | 5.72              |

Note: The above guidelines are for an unglazed (full broadcast) anti-slip surface. A standard glaze coat over an unglazed (30-40 mesh silica) surface requires 100 S/F to the gallon (or .01 gallon per S/F).

## COLOR SELECTION

NovoKote HB is available in the following colors: Black, white, light gray, medium gray, dark gray, light beige, dark beige, sand beige, safety red, tile red, and safety yellow. Other colors are available at an additional charge.

## CONCRETE PREPARATION

Before the coating is applied, the concrete must be:

- Clean – Contaminants removed
- Profiled – Surface etched
- Sound – Cracks repaired

Mechanical methods are preferred for preparing concrete prior to coating application. Shot-blasting, diamond grinding, scarifying and scabbling are all acceptable methods. The concrete profile should approximate 60-80 grit sandpaper after preparation.

## MIXING

Ratio of NovoKote HB is 3 to 1. That is, three parts of A (resin), to one part of B (hardener). Mix the following with a drill and jiffy mixer.

1. Premix the part A for 30-45 seconds. Pour three quarts of part A into a five gallon bucket.
2. Add one quart of part B and mix for another 30-45 second.

## APPLICATION PROCESS

The best method for controlling thickness during application is to map out the area first. After determining the layout and square footage of the area, calculate the required gallons of NovoKote HB (refer to above coverage chart). Next, mark off on the floor how many gallons of resin are to be used by the time predetermined points have been reached.

1. Pour mixed NovoKote HB onto concrete.
2. Trowel or screed rake the material until a resin mix is uniformly applied. If a screed rake is used, trowel away pin marks left by rake.
3. Use a 3/8" nap paint roller with phenolic core on an extended poll. Then lightly backroll resin, removing any unevenness left by trowel or screed rake. This generally requires the use of spike shoes, allowing one to walk in wet resin mix.
4. Wait 4-8 minutes while resin mix self-levels and a even resin surface appears.
5. Again, wearing spiked shoes, broadcast silica onto resin until resin is thoroughly covered. This method requires that silica be thrown upward over the resin. Throwing silica directly at the resin mix will result in an uneven finish. Remember to keep a 1-2 foot wet edge by not broadcasting silica into the edge where the next batch is to be applied. Otherwise, a ridge will appear in the final finish.
6. Excess silica can be swept up after about 6 hours.

## OPTIONAL GLAZE COAT

1. NovoKote HB, NovoKote RC or NovoKote TC may be used as glaze coat.
2. Mix four quarts of NovoKote HB resin without silica at a time using above mixing instructions.
3. Immediately pour out onto the unglazed surface in a ribbon, walk ing and pouring at the same time until the bucket is empty.
4. Using a window squeegee on a pole, pull the resin tightly and uniformly over surface.
5. Using a 3/8" paint roller with a phenolic core, roll glaze coat up and back.
6. Lastly, backroll from left to right (perpendicular to first).

## PACKAGING

NovoKote HB is available in two different kit sizes:

|               | Part A  | Part B |
|---------------|---------|--------|
| 4 Gallon Kit  | 3 gal.  | 1 gal. |
| 20 Gallon Kit | 15 gal. | 5 gal. |

## CLEANUP

NovoKote HB while in a liquid state may be cleaned up with water and degreaser. Otherwise a strong solvent may be required while NovoKote HB is setting up.

## WARRANTY

Petra Polymers products are warranted for one year after date of application. Please refer to the Petra Polymer's Limited Material Warranty for additional clarification.

## SAFETY

Consult NovoKote HB material safety data sheet. Avoid NovoKote HB contact with skin. Some individuals may be allergic to epoxy.

Information expressed in this data sheet is correct to the best of our knowledge. The technical data sheet does not constitute a warranty, expressed or implied as to the performance of this product. The use and application of this product is beyond our control. Warranty and liability therefore is limited to the replacement only for defective materials. Technical information is subjected to change without cause.

