

McKinnon Materials, Inc.

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AURORA EPOXY

Physical Properties		Performance Properties	
Composition:	Two part component epoxy system for use as a sealer, glaze or finish coat for industrial seamless flooring, or as a binder in aggregate filled trowable or broadcast compounds.	Tensile Strength: Elongation: Hardness:	(ASTM D638 8000 PSI) (ASTM D638 7%) (ASTM – D2240 shore D) 78
Solids Content:	100% solids	Comprehensive Strength: Impact Strength:	(ASTM D695) 12,000 PSI Foot lbs per inch of 5 notch ASTM D-256
Mix Ratio:	3 to 1	Abrasion Resistance	Grams weight loss 32mg loss federal test method standard 406 method 1091
Viscosity:	@ 77 degrees F cps 1,200		
Pot life:	@ 77 degrees F approximately 28 minutes	Chemical Resistance	
General Information:		Reagent	Rating
Application:	See surface preparation R-recommended for continuous service L- limited recommendation, occasional spills	Acetic Acid 10% Acetone Bleach Citric Acid 5% Crude Oil Ethyl Alcohol Gasoline Hydrochloric Acid 15% Lactic Acid 5% Methyl Ethyl Ketone Nitric Acid 5% Skydrol Sodium Hydroxide 50% Sulfuric Acid 25% Toluene Xylene	R L R R R R R R R R L R R R L R
Coverage:	Build coating depends on the application technique substrate porosity and intended function, but for most applications, an average thickness of 5 to 15 mills will get 350 to 100 sq. ft. per gallon		

Drying Time:	Should be allowed to cure 12-18 hours at normal room temperature for light traffic, and 4-5 days for heavy traffic.		
Clean up:	Tools and mixing equipment should be thoroughly cleaned prior to gelation of the product. Typical solvents such as xylene and acetone may be used for cleaning.		

TECHNICAL DATA Aurora Epoxy Dust (Metallic Color Pigments)

PRODUCT DESCRIPTION:

Metallic Color Pigments are special effect pigments with a particle size range of 5 – 100 um that are designed to be mixed with a clear coating resin binder to obtain a variety of uniquely variable flooring appearances. Random patterns can be achieved dependent on the creativity and experience of the installer and no two floors will be exactly alike.

RECOMMENDED FOR:

Recommended for light industrial and commercial applications as well as office areas or lobbies.

SOLIDS BY WEIGHT and VOLUME

100%

VOLATILE ORGANIC CONTENT:

Zero pounds per gallon

STANDARD COLORS:

Sandbar, Bamboo, Guava, Manatee, Pearl, Rum, Maui, Azure, Americana, Whale, Sandal and Coral.

RECOMMENDED FILM THICKNESS:

Varies by system and products used

COVERAGE AREA:

Utilizing a 4 OZ container of the metallic color pigment, the typical applications with a standard epoxy binder system would be approximately 75-100 square feet per gallon.

PACKAGING INFORMATION

Available in pre-measured 4 oz containers (weights approximate)

MIX RATIO:

Each 4 OZ container is suitable to add to one gallon or 1 ½ gallons of clear binder material, depending on the overall look and opacity desired.

SHELF LIFE:

2 years in unopened containers that are stored properly

DOT CLASSIFICATIONS:

“not regulated”

APPLICATION TEMPERATURE:

Dependent on binder system used

CHEMICAL RESISTANCE:

The addition of 4 oz of the metallic color Pigment will have a negligible influence on the overall chemical resistance of the system.

CURE SCHEDULE:

Dependent on binder system used.

PRIMER:

Primers can vary by product and color – see application guidelines and procedures.

TOPCOAT:

The binder system with the addition of the Metallic Color Pigment can be the finish coat. However, in some applications, a clear topcoat can be utilized. To protect the finished surface, a high performance floor finish or wax can be utilized in conjunction with regular cleaning and buffing.

FEATURES:

- * Metallic Color Pigments will not adversely affect the physical properties of the cured binder system..
- * Almost unlimited color variations as colors can be intermixed.
- * The product, when used with a clear binder system and colored primer, is easy to install and develops its own patina with minimal effort.
- * When installed, the color hues will vary dependent on lighting conditions and angle of vision.
- * Product is pre-measured and packaged with the correct amount of pigment designed for each mixed gallon or mixed 1 ½ gallons of binder material..
- * Metallic Color Pigments have a long shelf life and are very stable in storage.
- * Pigment loading can be adjusted to provide for more or less opaque appearance, depending on the desired look and finish.

LIMITATIONS:

- * Color stability or gloss may be affected by environmental conditions such as high humidity, chemical exposure, UV exposure or exposure to lighting such as sodium vapor lights or applications in direct sunlight, which are dependent on the type of binder used..
 - * Use a suitable colored primer before applying the clear binder system with the Metallic Color Pigment added. Color mixing and primer color selected will effect the final effects provided.
 - * Substrate temperature must be 5°F above dew point.
 - * All new concrete must be cured for at least 30 days prior to application.
- *Always apply a test patch to determine visual appearance and application techniques before undertaking the entire job.**
- * Careful attention must be made to ensure thorough mixing. When custom blends are used, good record keeping will help insure reproducible and predictable results.
 - * Results will be diminished when applying at less than the recommended coverage rate of the clear binder and a good application technique and texture is required to achieve dimensional depth.

Read and review the application guidelines before use.

See reverse side for limitations of our liability and warranty.

Application Guidelines and Procedures

1) PRODUCT STORAGE: Store product in a cool and dry area away from direct sunlight.

2) SURFACE PREPARATION: The most suitable surface preparation would be surface profiling with a floor grinder. However, a fine brush blast (shot blast) to remove all laitance can be used as well. If shot blasting, a CSP-2 or CSP-3 is ideal and will help to avoid corn rows that can detract from the look of the floor. A smooth but slightly profiled surface will provide the best results. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is generally dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.

3) PRIMING and SURFACE REPAIRS: Before priming, repair any cracks, holes or other imperfections. The primer selection is an important component of the system application. Each primer color selection will provide a different look even when the same metallic color pigment is used. Light will pass through the applied metallic color pigmented binder system and generally dark color primers will provide the best results. Although you can experiment with different primer colors, we recommend that a black primer be used initially in your evaluations, as this will allow you to make your offerings more standardized. Other primer application techniques can be utilized to provide variable characteristics such as broadcasting a fine sand into the primer and backrolling in into the coating. This broadcast can provide a different characteristic look, add dimension and depth to the finished system appearance. Typical broadcast coverage rate is about a quart of sand per 500 square feet or a bag of sand per 7,000 square feet as a general guideline. Allow the primer to dry before applying the Binder with the metallic color pigment.

4) PRODUCT MIXING: Use one 4 OZ container of Metallic Color Pigment for each mixed gallon or each mixed 1 ½ gallon of the clear binder, dependent on the opacity desired. Mix the pigment in well with a slow speed mixing equipment to avoid mixing in air.

5) PRODUCT APPLICATION: Although many binders can be utilized, a clear epoxy binder is the preferred choice. The recommended coverage rate is 75 to 100 square feet per gallon. This coverage rate will generally ensure that the pigment will achieve the desired look by allowing the pigments in the binder to create their patina. If the coating is applied too thin, the pigments will not flow properly and the patina will not develop correctly. Mix only a kit size that can be applied within the usable pot life of the product to be utilized. Applications are best performed using a ¼" notched squeegee. This will application technique will ensure a uniform application rate. After the clear binder with the metallic color pigment has been applied, backroll the surface with a lint free roller to insure a uniform coverage and thickness. Depending on the final look desired, various finishing techniques can be used to provide different results dependent on the viscosity of the binder used. For a low viscosity binder, backrolling the surface will be all that is needed; but in some cases, you may want to perform some additional finishing steps. The first technique would be to use a small foam roller and finish by randomly swirling the finish into the floor. Many of these swirl marks will dissipate, but some will remain and leave a unique patina. This foam roller swirl technique can

work well with either a low viscosity binder or a medium viscosity binder. For a high viscosity binder where the product will not level back out correctly from a foam roller swirl technique, another application technique can be employed. This technique involves the use of a solvent, such as denatured alcohol to create various visual effects. The alcohol is best applied using a hand held trigger spray bottle using a coarse spray setting. As the spray droplets drop to the surface, the surface tension will change and create different patina patterns. This spray method can also be used for thin applications (8 mils or less) to provide a hammer look. **Experimentation is the best way to develop a technique for applications as many characteristics can be achieved through different techniques of application.**

6) RECOAT OR TOPCOATING: Although the applied Metallic Color Pigment and binder system can be the final coat, many clear coatings such as urethanes can be used to protect the unique surface created. If there is too much texture in the floor, dependent on primer application, a light sanding to knock down the high spots, followed by another application of the clear binder (without pigments) can be applied.

7) MAINTENANCE: A maintenance program can be employed to preserve the look of the unique floor installed. For the best long term visual effects, a high grade polymer wax can be applied to protect the surface. After the utilization of the polymer wax, the surface can be burnished. This will provide good visual clarity and protection. Periodic maintenance, wax recoating and buffing will provide a longer term floor. If you are not prepared to perform periodic maintenance, you may want to explore a lower gloss top coat. Lower gloss top coats, already having diminished gloss, will not show as much wear patterns over time as a high gloss surface.

8) CLEANUP: Cleanup is dependent on binder system used. For the Metallic Color Pigment, Use soap and water.

9) FLOOR CLEANING: Caution! Some cleaners may affect the color. Test each cleaner in a small area. If no ill effects are noted, you can continue to clean with the product and process tested.

10) RESTRICTIONS: Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured. It is best to let the floor remain dry for the full cure cycle.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT. We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.

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