



PRODUCTS, INC.

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**EPOXY & FIBERGLASS FLOORING, SEAMLESS FIBERGLASS WALL SYSTEMS, SEALERS,
HIGH PERFORMANCE COATING SYSTEMS, AND INDUSTRIAL CLEANERS**

**ARCHITECTURAL SPECIFICATIONS
#2411 ALIPHATIC URETHANE FLOOR COATING
OR 2400 ALIPHATIC POLYESTER URETHANE**

GENERAL

1.1 DESCRIPTION

- A. Applicable provisions of Division 0 & 1 shall govern all work under this section
- B. Work included: apply epoxy coatings on floors as listed in the finish schedule, as specified herein and as needed or required for complete and proper installation.
- C. RELATED WORK: Other documents affecting work of this section include, but are not necessarily limited to:
 - 1. Section 3300 concrete
 - 2. Section 09900 painting

1.2 QUALITY ASSURANCE AND STANDARDS

- A. The contractor shall employ adequate numbers of experienced, skilled tradesmen for the work who are familiar with the methods, materials, requirements and their standards needed for proper performance of the work specified and in accordance with the following standards:
 - 1. ASTM D 4, 260 acid etching
 - 2. ANSI American National Institute Standards for paint and color coding
 - 3. Epoxy floor coating contractor shall have a minimum of 5 years installation experience with projects of the same size utilizing the same or similar materials.
- B. General Contractor shall schedule work so as to minimize damage to surface from other trades work and to allow for the smooth and efficient application of the products.

1.3. SUBMITTALS

- A. Submit name of material manufacturer, printed instructions for installations and a sample of floor coating system.
- B. Submit coatings contractor qualifications with (at minimum) 5 jobs completed in the previous 24 months, with the size and wear characteristics similar to that bid with names, addresses, phone numbers of owners and project architects.

1.4 PRODUCT HANDLING

- A. Comply with the pertinent provisions of section 01640, specific product storage requirements as supplied by manufacturer, and applicable OSHA storage requirements

1.5 CONCRETE

- A. As part of this project, coatings contractor shall test all concrete prior to commencement of work to assure that moisture vapor transmission through the slab does NOT exceed 4.5 lb. moisture vapor/24 hours/1000sqft. If rates exceed the maximum the concrete must be allowed to

cure more or other corrective action much be taken to being the emission rate down to acceptable limits.

B. Concrete shall be poured without any "chloride" containing accelerators. Concrete shown to coating chloride accelerators may, at the option of the Architect, be removed and replaced at the concrete contractors expense.

C. Concrete mixture should have as low a water/cement ratio as possible consistent with the mix design required to give the final concrete specifications. A water/cement of 0.45 or lower is desirable.

D. Concrete shall be poured and finished to smoothness and flatness specifications as noted in Section 3300 Poured In place Concrete.

E. Concrete finish should be consistent with a standard industrial finish. Concrete should not be over troweled or "burnished black" as this will cause adhesion problems.

F. The use of a 10mil or thicker vapor barrier installed properly under the concrete is desirable.

PART 2 PRODUCTS

2.1 MATERIALS

A. Acid Etch: XA-201 DETERGENT ACID

B. Primer: #1013 EPOXY PRIMER IN CLEAR
(IF CONCRETE IS SUFFICIENTLY CURED)

C. If MVT level is in excess of 4.5 lb/24hr/1000sqft but below 8 lbs

1. one coat of MOISTURE VAPOR BARRIER EPOXY thinned back 60% with glychol ether EP and apply as a penetrating primer at 350 sqft per gal. When cured mix the MVP epoxy 35% with glychol ether EP and apply at 250sqft/gal giving an effective 100% solids rate of 100 sqft per gal effective application rate.

D. if higher than 8 lb/per 1000sqft/24 hours wait for it to dry or apply MVP primer 100% solids as per TDS specifications.

E. Top Coat(s): #2411 URETHANE FLOOR COATING OR # 2400 URETHANE FLOOR COATING AS SPECIFIED-

F: Colors/texture: as specified by Architect/Owner

G. PFAC polyurea joint filler if joint filling is called for.. see specification

2.2 MANUFACTURERS

A. C.D. Products Inc. 918 N Union St. Appleton, WI 54911 (920)-739-8685

2.3 OTHER MATERIALS

A. Provide other materials not specifically described herein but required for a complete and proper installation as selected by the contractor subject to the approval of the architect.

2.4 ALTERNATE MATERIALS

A. Clear Aliphatic Urethanes, containing at minimum 45% resin solids, installed over a suitable penetrating epoxy primer will be considered as equals.

PART 3 EXECUTION

3.1 INSPECTION AND PROTECTION

A. Assure that the areas to be coated are well ventilated with 12 air changes per hour. If proper air changes per hour are not available, turn off HVAC system and seal off area to be coated from balance of building. Applicator shall wear approved breathing protection devices.

B. Examine surfaces scheduled to be coated prior to commencement of work, report any area that may affect proper application. Correct or cause to be corrected any deficient areas reported

prior to coating. Proceed to coat noted defective areas only after architect/owner written approval.

C. Protect all other surfaces from acid etching and application of coating system

D. Flooring contractor shall honor all construction joints and/or expansion joints unless otherwise noted herein.

3.2 FLOOR PREPARATION

A. MILDEW: Remove mildew by scrubbing with a solution of bleach and trisodium phosphate. Rinse and allow to dry.

B. CONCRETE:

1. General Contractor shall have the appropriate trades, ahead of the coating contractor's work, remove all mortar, stains or paint spills/overspray from concrete surface.

2. Remove all dirt, dust and construction soil with a solution of TSP and mechanical agitation as required.

3. Neutralize floor surface as required and let dry prior to etching.

4. etch the surface with a 25% solution of 20% HCL as blended with 1 part XA-201 DETERGENT ACID AND 1 PART WATER

5 TERRAZZO GRINDING- wet or dry is also acceptable and disposal of the resultant material needs to be considered ahead of time

6. NOTE: If Shotblasting process is to be used submit the name of the Shotblast contractor to architect for prior approval. His years of experience and names of three jobs of similar size and the contact phone numbers and names of The Architect/Owner.

a. The contractor shall seal all doors into other parts of the building before process begins.

b. If surface is "over shot" this contractor shall patch that area with an appropriate epoxy floor patch.

c. Thoroughly clean floor surface of excess dust, cement particles, shot, etc. before application of flooring. If wiping the floor with a dark cloth produces any seen particles on that cloth, the floor is inadequately cleaned and shall be cleaned until dust free.

d. If shot process is selected, contractor/customer shall pay to have HVAC filters removed and replaced at conclusion of work.

3.3 APPLICATION

A. PRIMER: Apply 1013 EPOXY PRIMER at a rate of 350 sqft/gal, or to a degree that the floor is "satisfied" with primer, using a roller.

B. TOP COATS: Apply each top coat (as specified) at a rate of 300-350 sqft/gal uniformity to provide 3.5 mils DFT/coat. Do so within 24 hr of first coat application, otherwise tac wipe with surfprep102 to get subsequent bond.

C. For HIGH BUILD applications use #4100 EPOXY as the mid coat giving a DFT of 12-20 mils dft final surface.

D. Per the test concrete cure with a calcium chloride dome type moisture vapor transmission test: If over 4.5 use our MVP primer, wait until moisture transmission is down to acceptable rates or employ desiccant type dehumidifiers to speed drying.

E. Joint filling. Joints are to be filled from bottom to top WITHOUT the use of any backer rods or other fillers and left smooth and flush with the top of the concrete.

3.4 STRIPES

A. If striping is called for, apply striped after the final coat has fully dried. Apply stripes within 24 hours of top coat application with a brush or roller against a tape edge so as to produce

straight line edges and square corners as required. At a later period wipe surface with SURFPEP-102 to install bond sites for recoating.

3.5 PROTECTION OF WORK AND FINAL CLEANING

- A. Coating contractor is responsible to remove all trash and debris generated by his work and dispose of it in compliance with all local and federal regulations.
- B. During work Coatings contractor shall keep his work area free of unnecessary accumulation of tools, equipment, surplus material and debris.
- C. Coating contractor shall erect as required the necessary barriers, notices of work, keep off signs, no smoking signs, etc., as required.
- D. Coating contractor is responsible to inform general contractor of all hazards that may occur during the installation of this system. It is the general contractor's responsibility to inform other trades, the owner, etc. of these.