



PRODUCTS, INC.

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

ARCHITECTURAL SPECIFICATIONS POLYMITE AND SANDROCK FLOORING

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 includes, 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 epoxy manufacturer, printed instructions for installations and a sample of flooring system.
- B. Submit samples of proposed POLYMITE SYSTEM in thickness, color, and top texture desired. This will remain the standard for the system used on the job.

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 lb. moisture vapor/24 hours/1000sqft. If rates exceed the maximum the concrete must be allowed to cure more or other corrective action must be taken to bring 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 contractor's expense.
- C. Concrete shall be poured and finished to smoothness and flatness specifications as noted in Section 3300 Poured In place Concrete.
- D. Concrete shall be poured with a water/cement ratio not higher than .45 and ideally .4 so as to allow the slab to properly cure.
- E. we recommend a high FF number (as specified by the Face companies), >35, for the best appearance of the work.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Acid Etch: XA-201 DETERGENT ACID
- B. Primer: #1013 EPOXY PRIMER with 50% solids clear or 65% solids colored
- C. If MVT level is in excess of 4.5 lb/24hr/1000sqft but below 10 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 10 lb/per 1000sqft/24 hours wait for it to dry or apply MVP primer as above at 10 LBS OR BELOW
- E. Broadcast Coats/ top coats: #4100 EPOXY 100% SOLIDS EPOXY IN THE COLOR OF CHOICE
- F. broadcast materials – equivalent to round 3M #28 grade color quartz or #11 grade granules depending on the floor style desired. For SANDROCK SURFACE use the 3M type color quartz and clear #4100 and install as described above.

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

- Consult C.D. Products, Inc. for suggested alternate products.

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. Apply XA-201 DETERGENT ACID at a rate of 200 sqft/gal over the surface. rinse thoroughly and let dry
Alternative- dry grind the surface thoroughly with an 80 grit diamond stone or rougher. Utilize a high performance Pulse vac to keep grinding dust to a minimum Sweep and vacuum the surface thoroughly.. and ideally rinse surface, if possible.
4. 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, this contractor shall pay to have HVAC filters removed and replaced at conclusion of work.

3.3 APPLICATION

- A. PRIMER: Apply primer at a rate of 350 sqft./gal, or to a degree that the floor is "satisfied" with primer, using a roller or airless spray.
- B. fill all holes and other repairs as well as any construction joints with #4100 or MVB epoxy as appropriate.
- C. broadcast coat: Apply #4100 at a rate between 100 and 150 SQFT/GAL to fully cover the substrate.
- D. Broadcast stone:: While the #4100 is still wet broadcast selected stone over the surface at the desired rate to achieve an "over filled" condition
- E. once #4100 had cured sweep/vacuum off al loose stone.
- F. apply successive layers of #4100 EPOXY and stone as required to construct the desired surface:

1. layer -	POLYMITE I	1/16-3/32 "
2 layers -	POLYMITE II	1/8 - 3/16"
3 layers -	POLYMITE III	3/16"-5/16"
4 layers -	POLYMITE IV	5/16 - 3/8"
- G. once the number of layers has been applied, sweep the surface and apply one layer of #4100 EPOXY AS THE FIRST "FILL COAT".
- H Once cured light sand or stone the surface to remove any loose stone. Sweep thoroughly.
- I apply successive top coats to achieve the degree of roughness/smoothness desired:
 - 1 Fill coat - rough- typical wet surface finish
 - 2 Fill coats - semi smooth - typical commercial finish
 - 3 Fill coats - smooth- typical clean room finish

3.4 STRIPES OR OTHER DECORATIONS

A. If striping is called for, apply striped after the final coat has fully dried. Apply stripes with a brush or roller against a tape edge so as to produce straight-line edges and square corners as required.

3.5 PROTECTION OF WORK AND FINAL CLEANING

A. Coating contractor is responsible to remove all trash and debris generated by his work and its disposal 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.

(4/1/09)