



DUDICK, INC.

Corporate Offices
1818 Miller Parkway
Streetsboro, OH 44241
330-562-1970
800-322-1970
330-562-7638 FAX
www.dudick.com

MEMBRANE 310

**Flexibilized, Epoxy Membrane
20-30 mils**

FEATURES

Bridges Surface Cracks in Concrete
Flexible System

RECOMMENDED APPLICATIONS

Flooring Underlayment
Mechanical Room Floors

PHYSICAL PROPERTIES

| | |
|--------------------------------------|---------------------------------|
| Compressive Strength ASTM C-579 | 6,000 PSI |
| Tensile Strength ASTM C-307 | 4,500-5,000 PSI |
| Tensile Elongation ASTM C-307 | 75-100% |
| Tensile Bond Strength ASTM D-4541 | Cohesive failure of concrete |

SPECIFICATIONS

Membrane 310 shall be an epoxy membrane consisting of a 20-30 mil slurry as manufactured by Dudick, Inc. and applied in accordance with the manufacturer's recommended practices.

THE MEMBRANE 310 SYSTEM

Requires one of the following primers:

Primer 67 is designed to tolerate residual moisture within the concrete and deeply penetrate the surface to provide the "wetting out" required for good bonding.

Primer 67DP is designed to deeply penetrate dense high compressive strength concrete.

Basecoat: Membrane 310 uses flexibilized epoxy resin and silica fillers to produce a self-leveling slurry.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

| APPROXIMATE SQUARE FEET PER GALLON | |
|---------------------------------------|---|
| CONCRETE | |
| PRIMER | Refer to the specified primer data sheet |
| Membrane 310 | 60-80 ft ² / gallon |
| S-10 Solvent / clean up | 500 ft. ² |

**Quantities shown are for estimating purposes only. Actual field usage may vary.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Concrete: Concrete must be prepared mechanically to remove surface laitance. Oils, grease or other contaminants must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 40-60-grit sandpaper or the visual standard, CSP-5 from the International Concrete Repair Institute **with exposed pea gravel**. The prepared surface should have a nominal tensile strength of 250 PSI per ASTM D-4541.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.

Additional surface preparation will be required if a 40-60 grit texture **with exposed pea gravel** is not achieved and the surface laitance not completely

removed after a single application of acid or with the first mechanical preparation procedure.

Abrasive blasting removes laitance, exposing honeycombs or voids beneath the surface which must be filled with **Scratch Coat** prior to application of membrane 310. (Refer to separate specified data sheet for additional information).

APPLICATION SPECIFICATIONS

Substrate temperature of concrete must be between 50°F and 110°F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

PRIMER

Refer to the specified Primer Data Sheet

PRIMING

Concrete: Concrete must always be primed to aid in the “wetting out” required for good bonding. Mix **Primer 67 or Primer 67DP Component A with Component B** for 2-3 minutes and apply with a brush, roller or spray. We recommend the membrane be applied over tacky primer. Do not allow the primer to puddle. **Refer to specified primer data sheet for additional instructions.**

Important - With all epoxies after priming and before each additional coat, examine the surface for amine blush (oily film). If present, remove by washing with warm water and detergent.

Pot life of the mixed **Membrane 310** will depend on the temperature. To prevent material waste, do not mix more than can be used according to the corresponding tables:

Membrane 310

| TEMPERATURE | POT LIFE |
|-------------|----------|
| 50°F | 60 min. |
| 75°F | 30 min. |
| 90°F | 15 min. |

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

MEMBRANE 310 MIX RATIOS BY VOLUME

Available in 1 and 5 gallon premeasured units. Add the full contents of **Component B** to **Component A**. Do not break down units.

Horizontal Applications

Add the premeasured amount of **Component B** to **Component A** and mix thoroughly for 1-2 minutes. Mix well and apply 20-30 mils WFT using a serrated squeegee or gauge rake. Immediately roll with a spiked roller to deaerate and help level. Dudick, Inc. recommends broadcasting Dudick #4 filler into the wet **Membrane 310** to enhance adhesion of topcoats.

Vertical Applications

Mix **Components A & B** as described under Horizontal Applications. Add the appropriate amount of **Membrane 310** bodying agent to the mixed **Membrane 310 Liquids** to achieve trowelable consistency. Mix well and trowel apply 20-30 mils and backroll with a 1/4" nap roller dampened with **S-30 Smoothing Liquid**.

NOTE:

All substrate defects such as bugholes, divots, etc. shall be filled smooth with surrounding substrate surface with the specified Dudick Scratch-Coat prior to the application of Membrane 310.



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Membrane 310 Cure Cycle:

| TEMPERATURE | Maximum Recoat Time | CURE TIME |
|-------------|------------------------|--------------|
| 50°F | 120 hrs. | 96 hrs. |
| 75°F | 72 hrs. | 24 hrs. |
| 90°F | 48 hrs. | 16 hrs. |

If these recoat times are exceeded, consult a Dudick representative. Sanding or abrasive blasting may be required before the next coat. Recoat times are dramatically reduced when the coating is exposed to direct sunlight.

Application of **Membrane 310** in direct sunlight may lead to blistering, pinholes, or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Double priming, shading, or evening application may be required. Consult a Dudick representative.

CLEANING

Use **S-10 Cleaning Solvent** to clean tools and equipment.

SHIPPING

Refer to Material Safety Data Sheets.

STORAGE

Warning: All Dudick products classified by DOT with either white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

Store all products in a cool, dry area away from open flames, sparks or other hazards.

When stored in their original, unopened containers at 50°F-75°F, **Membrane 310** components will have a six-month shelf life. Storage in direct sunlight or excessive heat will reduce working time and shelf life.

SAFETY

M.S.D.S: Material Safety Data Sheets must always be read before using products. Membrane 310 systems are intended for application by experienced, professional personnel. Dudick, Inc. can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied.

If **Membrane 310** materials are to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people. Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.
- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.

3/22/10

- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it. **Membrane 310** liquid can be removed with **S-10 Cleaning Solvent**, MEK, or lacquer thinner.
- Keep open flames and sparks away from the area where materials are being mixed and applied.
- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact, flush with water for at least 15 minutes and consult a physician.
- If swallowed, do not induce vomiting; call a physician immediately.

NOTE: Dudick, Inc. ("Dudick") warrants all goods of its manufacture to be as represented in its catalogs and that the manufacture of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's sole obligation under this warranty shall be to replace any material which its examination shall disclose to be defective. Dudick makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the Purchaser. DUDICK, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTABLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REPAIR OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND DUDICK INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY DUDICK'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by Dudick and Purchaser.