



DUDICK, INC.

Corporate Offices
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 www.dudick.com

MEMBRANE 510/510R
Low VOC
Low Emitting Material
Flexibilized, Urethane Membrane
40-125 mils

GREEN BUILDING FEATURES

Contributes towards satisfying credit for low emitting material under LEED 4.1
 Contains recycled post industrial crushed glass
 Contains rapidly renewable materials
Meets California South Coast Air Quality Management district Standards
In compliance with California Department of Public Health CDPH/EHLB/Standard Method
Version 1.2, 2017, Emission testing method for CA Specification 01350

RECOMMENDED APPLICATIONS

Bridges Surface Cracks in Concrete
 Anti Fatigue Properties
 Research Facilities and Operating Rooms
 Flooring Underlayment
 Mechanical Room Floors
 Waterproofing Membrane

PHYSICAL PROPERTIES

Tensile Strength ASTM D412	350 PSI
Tensile Elongation ASTM D412	30-40%
Tensile Bond Strength ASTM D7234	Cohesive failure of concrete
VOC ASTM D2369 Method E	<5 g/l

SPECIFICATIONS

Membrane 510 shall be a 40-50 mil urethane membrane as manufactured by Dudick, Inc. and applied in accordance with the manufacturer's recommended practices.

Membrane 510R shall be a urethane membrane 125 mil fiberglass reinforced membrane as manufactured by Dudick, Inc. and applied in accordance with the manufacturer's recommended practices.

THE MEMBRANE 510/510R SYSTEM

Primer 67LV shall be 3-4 mils thick, high solids epoxy cured with an amine hardener as manufactured by Dudick Inc.

Membrane 510 uses flexibilized urethane resin and silica fillers to produce a self-leveling slurry.

Membrane 510R uses flexibilized urethane resin and silica fillers to produce a self-leveling basecoat, 1 oz. fiberglass strand mat, a 20 mil urethane intermediate coat with broadcast and a 15-20 mils urethane topcoat.

Sealer High solids Urethane Sealer provides exceptional UV stability and abrasion resistance.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

APPROXIMATE SQUARE FEET PER GALLON	
CONCRETE	
Primer 67LV	150-200 ft ² / gallon
MEMBRANE 510	
Basecoat	30-40 ft ² @ 40-50 mils
MEMBRANE 510R	
Basecoat	80 ft ² @ 20 mils
Reinforcement	Area + 10%
Intermediate Coat	35-40 ft ² @ 20 mils
Broadcast	1 lb./ ft ²
Topcoat	80-125 ft ² / gallon @ 15-20 mils
S-10 Solvent	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 D7234.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D4263.

Slab on Grade concrete must receive Dudick Vapor-Stop prior to Membrane 510 application.

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 510R. (Refer to separate specified data sheet for additional information).

APPLICATION SPECIFICATIONS

Membrane 510/510R must be sealed with Dudick Sealer. Contact Dudick, Inc. for recommended Sealer for your application.

Temperature of the concrete substrate must be between 60°F and 90°F.

Important! Product mixing and application must be performed in a controlled environment of 70% or less relative humidity and maintained for 12 hours after application.

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

PRIMING

PRIMER 67LV MIX RATIO (BY VOLUME)

Primer 67 LV Component A 80 fl.oz.
Primer 67LV Component B 48 fl.oz.

The pot life of the mixed **Primer 67LV** will depend on the temperature. To prevent material waste and avoid damage to equipment, do not mix more material than can be used according to the following table:

PRIMER 67LV POT LIFE

TEMPERATURE	PRIMER 67LV POT LIFE
50°F	90 min.
75°F	60 min.
90°F	30 min.

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

PRIMING

Concrete: Mix the pre-measured units of **Primer 67LV Component A with Component B**. Prime all concrete surfaces to be coated with **Primer 67LV** at 3-4 mils WFT. Do not allow the primer to puddle. **Membrane 510/510R must be applied over Primer 67LV within 48 hours after the Primer 67LV application. Primer 67LV must be tacky during Membrane 510/510R application.**

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.

MEMBRANE 510

BASECOAT

Add the full contents of **Component B** to **Component A** and mix thoroughly. **Do not break down units.**

Do not use partial or opened containers. Once a container is opened, it must be used. Any leftover material must be disposed.



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Apply using a serrated squeegee or gauge rake. Immediately roll with a spiked roller to deaerate and help level.

MEMBRANE 510R

BASECOAT

Do not use partial or opened containers. Once a container is opened, it must be used. Any leftover material must be disposed.

Add the full contents of **Component B** to **Component A** and mix thoroughly. **Do not break down units.**

Apply 20 mils WFT using a serrated squeegee or gauge rake. Immediately roll with a spiked roller to deaerate and help level. Immediately press fiberglass strand mat into uncured basecoat. Lap all edges by 1-inch. Use a roller lightly saturated with **Membrane 510R** basecoat liquid, roll vigorously until mat has lost its white color.

Allow basecoat to cure overnight. Examine the fiberglass for any bubbles or blisters. If present, these must be repaired prior to the topcoat application.

INTERMEDIATE COAT

Add the full contents of **Component B** to **Component A** and mix thoroughly. Do not break down units.

Apply 20 mils WFT using a serrated squeegee or gauge rake. Immediately roll with a spiked roller to deaerate and help level. Immediately broadcast with clean and dry Dudick #4 aggregate to excess and allow to cure overnight.

TOPCOAT

Add the full contents of **Component B** to **Component A** and mix thoroughly.

Apply 10-20 mils WFT, depending on desired surface texture, using a serrated squeegee or gauge rake. Immediately roll with a 3/8" nap solvent resistant roller and back roll to smooth topcoat finish.

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 510R.

Membrane 510/510R 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 510/510R** 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, **Primer 67LV and Membrane 510/510R** components will have a six-month shelf life. **Containers of Membrane 510/510R that have been opened must be discarded if not used.** 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 510R 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 510/510R** 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.
- 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 510R** 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.
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- 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**



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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.

10-31-22