

**SC-113 STRONGCOTE VEHICULAR GRADE
TRAFFIC DECK MEMBRANE SYSTEM SECTION 07570**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. SC-113, Heavy Duty Vehicular Grade Traffic Deck Membrane System with Migratory Corrosion Inhibitors

1.02 RELATED SECTIONS

- A. Section 07715; Prefabricated Expansion Joints
- B. Section 07900; Sealants
- C. Section 03700, Strongcrete Repair Mortars

1.03 REFERENCES

TYPICAL PERFORMANCE TABLE		
Committee ASTM 09-03-15	Carbonation Resistance	<2 mmControl (uncoated) 30.5 mm
ASTM E-96	Water Vapor Transm.	99.7 grams/sq. meter/24 hrs. or 14.3 perms
ASTM C 1202	Water Permeability	System 235 Coulombs
NCR 244	Chloride Permeability	92% Chloride screened out
ASTM C-501	Wear Resistance	Wear index 14.5 C-17 wheel
ASTM C-609	Static Coefficient of Friction	Rubber, dry: 0.82, wet: 0.80. Leather, dry: 0.9, wet: 0.8.
ASTM C-638	Tensile Strength	460 psi
ASTM C-638	Elongation (Crack Bridging)	600% (EM-100-N)
ASTM C-836	Crack Bridging	1/8"no rupture or loss of bond (EM-100-N)
ASTM D-751 Procedure B	Hydrostatic Pressure 2lbs/ft/2 months	No transmission
ASTM D-1004	Tear Resistance	119 pounds per linear inch
ASTM C-638	Intercoat Adhesion (System)	20 piw
ASTM C-638	Adhesion to Concrete	12.3 piw
ASTM D-822	Weathering Resistance	5000 hrs,w/ultraviolet & water spray produced no effect
ASTM B-117	Salt Spray	2000 hrs. exposure produced no degradation
ASTM D-2240	Hardness	82 Shore A
ASTM E-84	Fire Test	System rated Class A
Environmental	VOC	Zero, non-toxic, odorless

1.04 SUBMITTALS

- A. Submit two samples of each coating system(s), applied to 1/4" plywood or similar rigid base.
- B. Submit two copies of manufacturer's literature for all products furnished, including appropriate Material Safety Data Sheets (MSDS).

1.05 QUALITY ASSURANCE

- A. Applicator: Trained and certified by manufacturer
- B. Manufacturer: The manufacturer of the specified products shall have in existence, for a minimum of ten years, a program of training and technical support for certified applicators.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to job site in sealed, undamaged containers with labels intact and legible, indicating the material name, date of manufacture and lot number.
- B. Store materials indoors, in a dry location, at temperatures not exceeding 90°F or lower than 35°F.

1.07 PROJECT CONDITIONS

- A. Install materials in accordance with all safety and weather conditions required by manufacturer or as modified by applicable rules and regulations of local, state and federal authorities having jurisdiction.
- B. Project conditions involve only inspection and preparation of the substrate surface to be coated.
- C. Environmental Conditions:
 - 1. All materials individually or mixed shall have zero volatile organic content (VOC).
 - 2. Do not apply materials if rain is anticipated within three hours of application.
 - 3. Substrate and air temperatures must remain above 40°F for at least four hours after application of materials and remain above freezing for 24 hours.
 - 4. All materials are non-hazardous and Class A fire-rated.

1.08 GUARANTEE

- A. The certified applicator and the manufacturer shall provide the owner with a five-year joint guarantee on the products and systems covered by this specification.
- B. The manufacturer of the specified products shall be under no obligation to provide a guarantee on the specified products in this specification, should a contractor be selected other than a certified applicator of the manufacturer.

1.09 MAINTENANCE

- A. Wash traffic deck membrane with soap and water using a bristle brush or pressure washer of 1000 psi. Periodic cleaning extends the life of the membrane and enhances its appearance.
- B. Chemical spills should be removed to avoid possible damage.

PART 2-PRODUCTS

2.01 MATERIALS

SC-113 HEAVY DUTY VEHICULAR TRAFFIC SYSTEM WITH MIGRATORY CORROSION INHIBITORS

Two coat 90-mil minimum heavy duty vehicular traffic-bearing membrane overlays EM-100-N, over cracks and flashings, and the substrate.

MANUFACTURER: Strongwall Industries, Inc. 107 Chestnut Street, Ridgewood, NJ 07450
T: 201-445-4633 F: 201-447-2317
email: strongwall@strongwall.com

2.02 COMPONENTS

- A. Traffic-bearing component is a latex vinyl copolymer emulsion and a factory apportioned catalyst with abrasion resistant aggregates and(Migratory Corrosion Inhibitors).
- B. Flashing reinforcement (when required) is a spray bonded non-woven fabric with 5x5 polypropylene web.
- C. Crack treatment is an elastomeric rubber emulsion packaged in 5-gallon cans.
- D. Cleaning agent is water.
- E. Resicolor/Resiclear traffic bearing color toppings, are latex monopolymer emulsions packaged in 5-gallon pails.

2.03 MIXES

- A. Materials
 - 1. Crack treatment component
EM-100-N, a rubber emulsion, packaged in 5-gallon pails.
Mixing Ratio: Apply directly from pail
Yield: 160 sq. ft. at 50 mils wet per 5-gallon pail
 - 2. Traffic-bearing component
Strongcote SC#3 Liquid, a latex vinyl copolymer, 5 gallons of liquid packaged in a 6-gallon pail and Strongcote #3-HD (heavy duty) Powder, an aggregate catalyst, packaged in 55-pound bags (Migratory Corrosion Inhibitors).

Mixing Ratio: Two 55-lb bags of Strongcote #3 (HD) Powder and one 5-gallon pail of Strongcote #3 Liquid form one unit.

Average Yield Per Unit:
(on smooth concrete) SC-113: 180 sq.ft. @ 90 mils
120 sq.ft. @ 135 mils

NOTE; PREMIX ALL LIQUIDS

- B. Mixing:

1. Stir Strongcote #3 Liquid in its shipping container for about 30 seconds and pour one-half its contents into a clean mixing container.
2. Gradually add one bag Strongcote #3 or #3 HD Powder into the shipping container, mixing continuously as the powder is added, using a ½" varispeed drill with mounted Jiffy blade.
3. After all powder is added, continue to mix for 3 minutes until the materials form a lump-free mixture. The mixture has a pot life of 30 minutes at 70°F.

PART 3-EXECUTION

3.01 Acceptable installers shall be trained and certified by the manufacturer.

3.02 EXAMINATION

A. Concrete:

1. Before the membrane is applied, inspect the top surface of the substrate, perform all required structural and surface repairs, profile to eliminate ponding and treat as necessary to remove laitance, loose material on the surface, grease, oil, paint and other contaminants, which will affect the bond of the membrane.
2. Verify that curing methods used for concrete are compatible with the top surface requirements for the traffic deck membrane.
3. Commencement of membrane installation implies acceptance of the top surface of the substrate area only, as suitable to accept deck-membrane system.

3.03 PREPARATION

A. Equipment Options:

1. Shotblast machine to clean and vacuum concrete surface.

B. Procedure:

1. Make as many passes as required with shotblast machine and vacuum surface clean.
2. Pretreat areas of oil drippings with a penetrating oil remover and rinse. Spray concrete deck with HD concrete cleaner, allow to soak for 30 minutes without drying, and waterblast.

3.04 APPLICATION

A. Vehicular and Heavy-Duty Vehicular Traffic Membrane: Strongcote SC-113

1. Crack treatment component:

- a. Rout all structural cracks and cracks wider than 3/32" to 3/8" maximum and fill with HPL sealant, per manufacturer's recommendations and details. Apply, over all cracks, a 2" wide (minimum) ribbon of EM-100-N elastomeric rubber component in two 25 wet mil coats. Broadcast clean, dry medium-size, quartz sand over second coat.
- b. Allow to fully cure, for a minimum of 2 hours at 70°F, to its full depth.

- c. Form flashings by applying a 4" wide ribbon, onto both horizontal and vertical surfaces.
Note: Add the required amount of thickener, into the EM-100-N material to increase its viscosity for the second coat, for vertical applications.

2. Traffic bearing component:

- a. Dampen concrete surfaces to a dull grey with no standing water prior to applying SC-113.
- b. Mix and apply two coats in the specified thickness over the entire surface by squeegee and backroll or broom finish.. Control thickness by covering a measured section with each unit. Allow to cure for 2 hours (minimum) before reapplying.
- c. Do not dampen surface between coats of SC-113.
- d. Allow to cure for 12 hours (minimum) before opening to traffic.
- e. Sunlight, temperature, humidity, dew point and other atmospheric conditions may affect cure times.

3. Color Topping Component: Apply to improve cleanability and to enhance color quality.

- a. Materials: Resicolor #4 or Resiclear #6 homopolymer toppings, packaged in 5-gallon pails.

Mixing Ratio: Apply directly from pail.

Yield: 1000 sq.ft. per 5-gallon pail

- b. Mixing: Stir for 30 seconds
- c. Application: Apply on a clean, dry surface, using a short nap roller.

END OF SECTION

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