

***STRONGWARN SWADA-1000/2000 DETECTABLE WARNING SURFACES  
SECTION 09790***

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

SWADA-1000-2000 is a two-part tactile warning dome surface, which complies with the requirements of the Americans With Disabilities Act, Accessibility Guidelines (ADAAG), and California State Accessibility Standards (CSAS). It is applied directly onto existing concrete or asphalt substrate, requiring no substrate removals or milling.

**1.02 RELATED SECTIONS**

- A. Section 07570 Strongcote Traffic Deck Membrane Systems (SC-111) provide an anti-slip, attractive, durable protective surface over the entire platform.
- B. Section 03010 Strongcrete Latex Modified Repair Mortars to repair spalled and scaled concrete surfaces.

**1.03 REFERENCES**

<b><i>TYPICAL PERFORMANCE TABLE</i></b>		
<b>STANDARD</b>	<b>PROPERTY</b>	<b>RESULTS</b>
ASTM E-96	Water Vapor Transm.	99.7 grams/sq. meter/24 hrs. or 14.3 perms
ASTM C 1202	Water Permeability	System 560 Coulombs
ASTMC-501	Wear Resistance	Wear Index 14.5
MILD-3124	Impact Resistance	2 lb steel ball dropped from 50' produced no adhesion failure
ASTMC-1028-89	Slip Resistance	Dry leather 0.88, dry Neolith 0.96, wet Neolith 0.93, reduction due to wetting 1.6%
ASTM D-822	Weathering Resistance	5000 hrs with ultra-violet & water spray produced no effect
ASTMC-109	Compressive Strength	5100 psi average
ASTM C-1042	Shear Bond Strength	28 days: 1860
ASTMC-293	Flexural Strength	1900 psi minimum
ASTME-84	Fire Test	System Rated Class A
Environmental	MSDS	Zero VOC, non-toxic, non-hazardous

#### 1.04 SUBMITTALS

- A. 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 in a dry location at temperatures not exceeding 90°F (32°C) or lower than 35°F (2°C).

#### 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 top surface of the substrate 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 temperature must remain above 40°F for at least 4 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 with soap and water with a bristle brush or pressure washer of 1000 psi. Periodic cleaning extends the life of the system and its appearance.
- B. Chemical spills should be removed to avoid possible damage.

#### PART 2 - PRODUCTS

##### 2.01 ACCEPTABLE MANUFACTURERS

- A. Strongwall Industries, Inc., 107 Chestnut Street, Ridgewood, NJ 07450  
Telephone 201-445-4633 Fax 201-447-2317  
email: strongwall@strongwall.com

##### 2.02 MATERIALS

- A. #82 Truncated Dome is a blend of carboxylated latex emulsion with a factory apportioned powder catalyst. #82 is hand applied, onto a mold array, placed directly onto clean concrete, metal and other approved substrates, to form the required tactile warning surface.
- B. One 5 gallon pail #82 liquid and eight 32.5lb bags of #82 powder form one unit.  
Average yield, Domes: SWADA-1000/2000- 400 square feet per unit

Mixing Ratio: 5.5 quarts (maximum) of #82 latex emulsion and two 32.5 lb bags of #82 catalyst powder. Micro-adjust in the field, for the quantity of liquid used, to achieve optimum handling.

- B. #32 Field is a two-component blend of latex vinyl copolymer with factory apportioned catalyst powder and pigments, which is used to form the required field.

Mixing Ratio: One 5-gallon pail of #32 Emulsion and two 55-lb bags of #32 Catalyst Powder form one unit.

Average Yield: 400 square feet of field, one coat at 30 mils wet, per unit. Apply in two coats

- C. #4 is a pigmented sealer, used to enhance color quality. Applied directly from the container, #4 will yield 700 square feet per 5-gallon pail. Stir for 30 seconds and apply with a long nap roller or brush. Apply in two coats

## 2.03 SUPPLEMENTAL MATERIALS

- A. EM-100-N Crack Treatment Component is an elastomeric rubber emulsion packaged in 5-gallon cans.
- B. Strongcrete SW-81 is an SBR modified structural repair mortar material.
- C. Cleaning agent: water.

## 2.04 EQUIPMENT (Patent Pending)

- A. Flexible and reusable molds.

## PART 3 – EXECUTION

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

### 3.02 EXAMINATION

- A. Concrete:

Inspect the top surface of the substrate. Perform all necessary substrate repairs and remove laitance, grease, oil, paint and other contaminants, which will affect system adhesion.

1. Commencement of system application implies only acceptance of the substrate surface, as suitable to accept the system.

### 3.03 PREPARATION

- A. Equipment Options:

1. Shotblast or scarify, and vacuum so that surface is clean, then water blast using machine capable of delivering minimum water pressure of 2000 psi to the substrate.

- B. Procedure:

1. Make as many passes as required with shotblast or scarifying 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 with 4,000 psi.

### 3.04 APPLICATION

#### A. #82 Truncated Domes

##### 1. Mixing:

Place #82 Emulsion in an appropriate size container. Add the appropriate amount of #82 Catalyst Powder, while mixing continuously with a paddle mixer and a heavy duty slow speed (400-600 rpm) drill. Continue mixing until uniform mixture consistency is achieved, but, do not mix for more than 2 minutes. Mixture working time is 20 minutes at 70°F.

##### 2. Placement:

- a. With clean water, dampen concrete and all porous substrate surfaces to a dull finish. Immediately place mold segments onto the work area.
- b. Place #82 mixture onto the molds using a squeegee and a trowel, to help work the material into the mold openings and remove excess material from exposed surfaces of the molds.

Caution: Do not touch or move the mold, since it may break the bond.

- c. #82 mixture must be cured sufficiently to resist pressure with index finger before mold segments can be removed without causing damage.

##### Minimum Curing Time:

45°F - 55°F allow to cure for 12 hours minimum.

55°F - 70°F allow to cure for 6 hours minimum.

Above 70°F allow to cure for 3 hours minimum.

Do not apply at temperatures below 45°F

#### B. #32 Field (two coats required)

##### 1. Mixing:

- a. Stir #32 Emulsion for about 30 seconds using a heavy-duty drill and a Jiffy blade.
- b. Pour #32 Emulsion into a clean container. Gradually add #32 Catalyst Powder, mixing continuously as the powder is added. Never reverse this procedure.

- c. After all powder has been added, continue mixing for a minimum of three minutes until the materials form a lump-free mixture. The pot life at 70°F is approximately 25 minutes. Do not attempt to remix or use any material that has begun to set.

2. Application:

- a. With clean water, dampen concrete and all porous surfaces to a dull finish.
- b. Apply mixture with a long nap roller and allow to cure for one hour (minimum) at 70°F prior to application of additional coats.

C. #4 Sealer (two coats required)

- a. Stir material for 20 seconds using a heavy drill and a Jiffy blade.
- b. Apply to a dry #32 surface with a long nap roller. Allow to cure for one hour (minimum) at 70F prior to application of additional coats.
- c. Allow to cure overnight before accepting traffic.

END OF SECTION