# **Installation Procedure**



# WaboCrete® Membrane Generation II with Emcrete II

Membrane Sealing Expansion Joint System

The following installation procedure is very important and must be fully understood prior to beginning any work. To ensure proper installation and performance of expansion joint system the following actions must be completed by the installing contractor. **Failure to do so will affect product warranty**.

- 1) Carefully read and understand installation procedure. Contact Emseal's Technical Service Department at ((508) 836-0280 for product assistance.
- 2) Inspect all shipments and materials for missing or damaged components and hardware. Contact Customer Service at (508) 836-0280 with Emseal's order number and invoice for prompt assistance.
- 3) Inspect substrate or adjacent construction for acceptance before beginning work. Report unacceptable construction to the project manager for scheduled repair work.
- 4) Review Emseal shop drawings for project specific detailed information if Engineering services were purchased at time of order.





# **Health & Safety**

During the installation of any Sika Emseal product, appropriate personal protective items should be worn at all times, including but not limited to the following:

- Proper work clothing
- Safety glasses
- Safety boots
- Gloves
- Hard hat











Local rules and regulations regarding safe work environments and health should be followed.

# **Product Components**

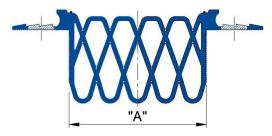
### **Required Components**



Emcrete II Elastomeric Concrete: Part A, Part B, Part C



Sikadur®-32 High-Mod Primer Part A, Part B



WaboCrete®Memebrane Gen II "ME" Series Gland (See Chart on Page 3 for Seal Sizes)
Component size and shape vary depending on seal





# **Sealing Gland Size Chart**

Description	Installation Width				Seal Width (Relaxed)
	Min (in)	Min (mm)	Max (in)	Max (mm)	"A"
ME-250 (#8828X)	1.00	25	1.75	44	1 7/8"
ME-250C (#8828XC)	1.00	25	1.75	44	1 7/8"
ME-300 (#8825X)	1.00	25	2.25	57	2 1/4"
ME-300C (#8825XC)	1.00	25	2.25	57	2 1/4"
ME-450 (#8881X)	1.50	38	3.00	76	3"
ME-450C (#8881XC)	1.50	38	3.00	76	3"
ME-600 (#8883X)	2.00	51	4.00	102	4 3/16"
ME-600C (#8883XC)	2.00	51	4.00	102	4 3/16"
ME-700 (#8885X)	2.50	64	5.00	127	5 3/16"
ME-700C (#8885XC)	2.50	64	5.00	127	5 3/16"
ME-850 (#8887X)	3.00	76	6.00	152	6 3/16"
ME-850C (#8887XC)	3.00	76	6.00	152	6 3/16"

### **Optional Components**







NEW Sikadur 229 66lb Bag (30.0 KG)
(P/N: 33137) for broadcasting onto Emcrete II
Elastomeric Concrete exposed surface.





## **Pre-Installation Notes**

Concrete Substrate must be clean (free of dirt, dust, coatings, rust, grease, oil and other contaminants), sound and durable. New concrete must be fully cured (Min. 14 days) and all laitance removed.

Mask joint edges with duct tape & roofing paper to ensure a clean final appearance.

Clean blockout with dry compressed air. (see Installation Step #1 on next page).

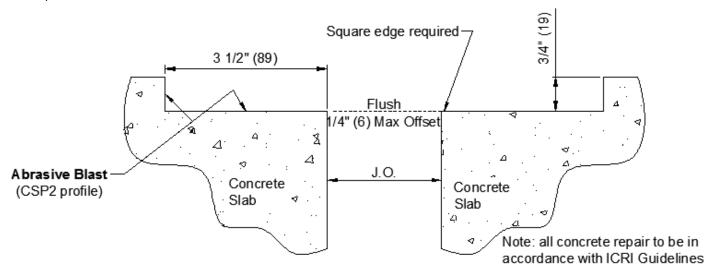
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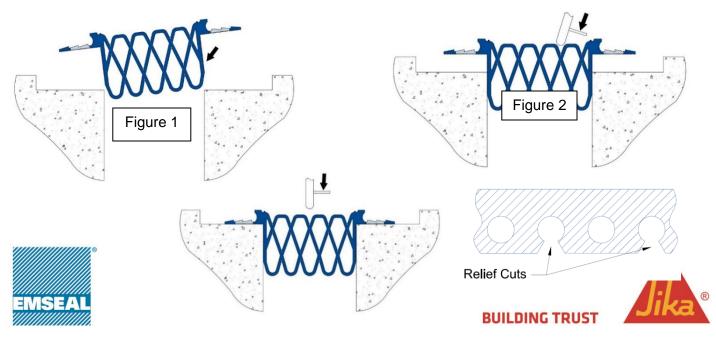


### Installation

Blockouts must be formed to 3 1/2" (89) wide and 3/4" (19) in depth. Abrasive blast the concrete blockout surfaces to remove the foam release agents, grease, bond breakers and to enhance bonding surface. Note: Abrasive blasting is the preferred method. Grinding with an aggressive concrete disc is acceptable when abrasive blasting is not possible (i.e. using zec wheel or diamond cup wheel).

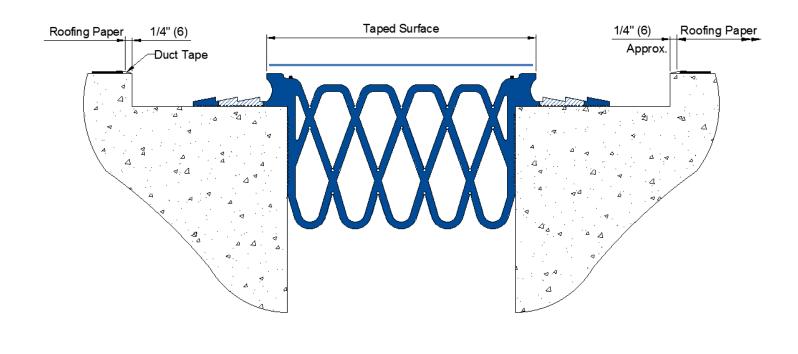


Position sealing gland over the joint opening as shown (Fig. 1). Compress bottom portion of seal and insert into joint as shown (Fig. 2). Complete installation by positioning seal within the joint to a depth so that the seal flaps lay flat in blockout. It may be necessary to make relief cuts in seal flaps in order for them to lay flat. Relief cuts should be made in a triangular shape. Do not remove large portions of seal flaps. Remove only enough to encourage seal to flatten – as shown below.



3

Tape the top of the sealing gland with duct tape in area shown above. The edges of the blockouts should be covered with roofing paper taped down with duct tape to keep area clean during pouring of Emcrete II Elastomeric Concrete.



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Sikadur®-32 High-Mod Primer must be used as a primer on the properly prepared dry concrete before beginning the installation of Emcrete II Elastomeric Concrete. **Sikadur-32 is meant for the concrete, it is not required on the seal**.

Stir contents of Sikadur-32 Part A to prepare for pouring. Pour Sikadur-32 Part A into a clean 5-gallon bucket.

Pour entire contents of Sikadur-32 Part B into the same 5-gallon bucket.

Mix until fully blended (approx. 3 minutes).

Lift flaps of the seal as shown below and brush apply a thin layer of primer to the concrete surface and lay flap back down. When primer is applied, the concrete shall look "painted", ensure that ponding or puddles are not occurring. **DO NOT** allow the primer to cure (you must pour wet-on-wet). Immediately following application of primer, begin installation of Emcrete II Elastomeric Concrete.

Emcrete II Note: DO NOT mix partial units of Emcrete II Elastomeric Concrete.

Stir contents of Emcrete II Part A with electric drill mixer.

Add Emcrete II Part A into a clean 5 gallon plastic bucket.

Add Emcrete II Part B and mix both components with a 3/4" Low RPM drill equipped with large grout paddle for 15 seconds and until well blended.

Add Emcrete II Part C aggregate component to the liquid material and mix until all aggregate is coated (Approx. 30 seconds).

Pour fully mixed Emcrete II Elastomeric Concrete flush to the top of the seal bulkhead and adjacent existing surface. The material will flow and self-level.

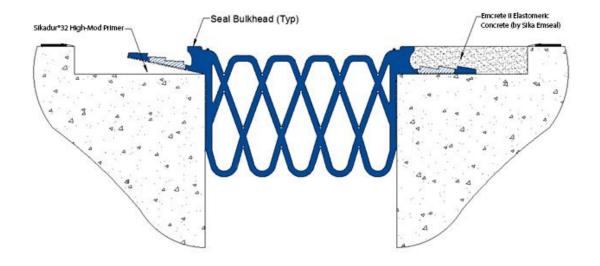
Lightly trowel surface to a smooth finish. If desired, solvent (i.e. Xylene, Toluene) can be used while troweling and for cleanup of tools.

Optional: After 2-3 minutes, broadcast Sikadur®-229 Aggregate to refusal (medium grit).

Remove tape from top of seal immediately after installation of Emcrete II Elastomeric Concrete is completed.







# **Deck-to-Wall Applications**

# 5

# **Using standard Retainer/Bracket.**

After installation of Emcrete II Elastomeric Concrete (in horizontal), place seal flap up along vertical surface as shown below.

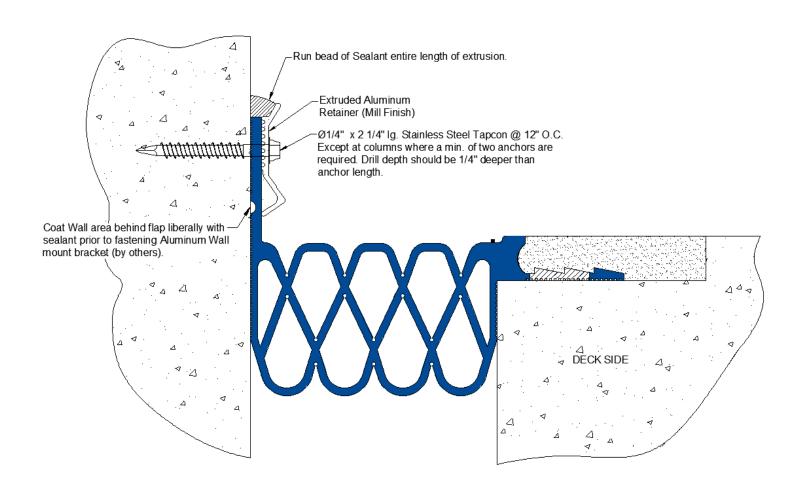
After seal flap is in place, place aluminum wall mount plate against vertical flap as shown below. Fasten wall mount plate to structure utilizing the 1/4" Dia. x 2 1/4" Ig Stainless Steel Tapcon Anchors (P/N 6542) supplied.

When installing anchors make sure that the Aluminum Retainer is mounted against the elastomeric seal (see below). This is to ensure that there will be good compression of the seal against the wall. To help ensure a watertight installation apply a continuous bead of sealant along top edge of the wall mount plate as shown below.

Note: Manufacturer recommends minimum two anchors at a column installation.



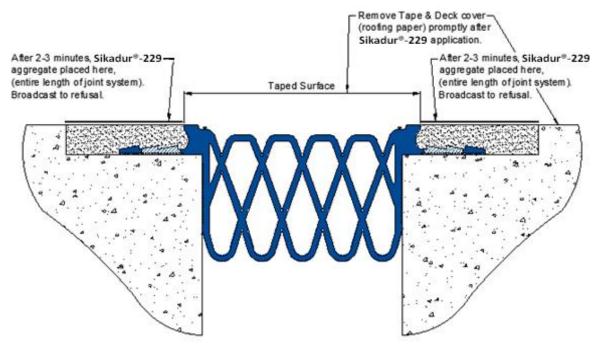




# Optional: Apply Sikadur-229 - Horizontal Only application

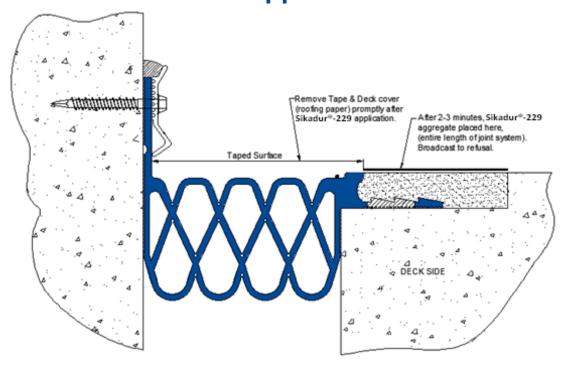






6B

# Optional: Apply Sikadur-229 Deck-to-Wall Application







## **Recommended Equipment for Mixing of Elastomeric Concrete**

- Abrasive blasting Equipment
- 3/4" Heavy Duty Drill (1 hsp Low RPM)
- 3/8" Hand Drill
- (1) Large Grout Paddle (4" to 6")
- (1) Small Paddle (2")
- (1) Roll of 15lb Roofing Paper

- (2) Clean 5 gallon plastic buckets
- (8) 2" disposable paint brushes (For Primer)
- Rubber gloves
- (8) 2" Margin trowels
- Misc. hand tools and extension cords

#### **Yield Calculations for Emcrete II:**

- One unit of Emcrete II will yield .60 ft^3.
- One unit of Emcrete II = 0.96 US Gallons of Part A, 0.53 US Gallons of Part B, and one 57.8 lb Container of aggregate. the formula for calculating volume is: (length in feet x width in inches x depth in inches)/ 86.4 = Number of units of Emcrete II needed to complete the job.

### Example

Based on a blackout size 3 1/2" wide x 3/4" deep x 30' long:

The calculation would be:  $(.0304 \times 30)$ = .91 units. This calculation is for only ONE side of the bockout.

### **Curing of Emcrete II**

Emcrete II is an ambient cure material. Cure times are therefore, temperature dependant. Suggested cure times are listed below:

Cure Time: 21° - 32°C (70°-90°F) -1 to 1 1/2 Hours (Open to Traffic) 10° - 21°C (50°-70°F) - 1 1/2 to 2 Hours

4° - 10°C (40°-50°F) - 2 to 3 Hour





### Sloped/Vertical Conditions (using Non-Sag Additive):

- 1. Premix Emcrete II Part A for 15-20 seconds (scraping sides and bottom of can)
- 2. Pour Emcrete II Part A into clean empty 5-gallon bucket.
- 3. Pour Emcrete II Part B into the same 5-gallon bucket.
- 4. Mix for approximately 15 seconds.
- 5. Add Pink Non-Sag additive "fluff"; blend for 30 seconds.
- 6. Pour into blockout and work Emcrete II with a trowel into sloped condition until it sets up and stays in sloped position.

### Notes:

All yields are approximate and do not include allowance for uneven blockouts, waste etc.

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