

# **Sikaflex 2c**

## **Application Instructions**



## Sikaflex 2c NS

**A two-component, non-sag, polyurethane elastomeric sealant.**

### **Where to use:**

- ▲ Building façade color matching
- ▲ Parking structures, precast concrete, tilt up,
- ▲ EIFS (Dryvit, Sto, etc)
- ▲ Submerged environments
- ▲ Canal and reservoir joints



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## Sikaflex 2c

- ▲ Sikaflex-2cNS
  - 2-component,  $\pm 50\%$  movement capability, 25 $\pm$ 5 shore A hardness
- ▲ Sikaflex-2cNSTG
  - 3-component, +25% movement capability, 45 $\pm$ 5 shore A hardness
- ▲ Sikaflex-2cSL
  - 2-component,  $\pm 50\%$  movement capability, 40 $\pm$ 5 shore A hardness



## Sealant Installation

### Substrate Preparation

- ▲ Proper preparation will eliminate majority of installation failures
  - Most common mode of sealant failure is adhesive
- ▲ Remove all weak material on bonding surface of porous substrates
- ▲ Surfaces must be clean, dry, and free of dew or frost
- ▲ Use best practices per industry standards
  - Porous substrate: abrasive, high pressure water (allow to dry after), grinding, wire brush
  - Non-porous substrate: 2 rag method



## Mechanical Methods



Saw cut joint – to provide proper width & sound joint interface.

# Mechanical Methods



Sandblast to remove residues & provide profile

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# Critical Success Factors

## Priming

- ▲ Priming can help get a better bond in many situations
  - Priming does not substitute for good prep
  - Many products perform w/out primers
  - Most commonly used on horizontal and submerged applications
  - Must be done properly to work (primers are not error free: ponding, waiting time, etc.)



Proper primer application with brush  
Prime only sides of the joint.  
Primer outside the joint may stain the substrate.  
Prime & seal the same day

## Critical Success Factors

### Backing materials

- ▲ Why use backer rod:
  - Attain proper wetting of substrate when sealant is tooled
  - Control sealant depth
  - Prevent 3-sided adhesion
  - Provide support for traffic areas





## Critical Success Factors

### Backing materials

#### ▲ Recommended Materials

- Closed cell backer rod: primarily a foam material with a surface skin
- Open cell backer rod: primarily a foam material without a skin
- Bicellular backer rod: sometimes called “soft” rod, this foam acts like a hybrid between open and closed cell rods
- Backing tape: primarily a self-adhesive polyethylene or Teflon material
- Hard rectangular extrusions for horizontals



# Sealant Installation

## Backing Materials



## Sealant Installation Backing Materials



- ▲ Make sure backer rod is 25% larger than joint width (under compression) to offer good tooling base
- ▲ Do not puncture closed cell backer rod when installing prior to sealant installation
  - Will cause bubbling in sealant

# Sealant Installation

## Mixing

### ▲ Packaging:

- 1.5 gallon unit (A & B Component)
- 3 gallon unit (A & 2B Components)
- Color pak or pre-tinted limestone



## Sealant Installation

### Mixing

- ▲ Open pail of Sikaflex 2c and remove □B□ component



## Sealant Installation

### Mixing

- ▲ Pour entire contents of **B** component into pail of component **A**
- ▲ Add entire contents of color pak into pail if using tint base



## Sealant Installation

### Mixing

- ▲ A cold weather booster can be added to speed up tack time



# Sealant Installation

## Mixing



Sealant Mixing Paddles

- ▲ Mix with a low speed drill (400-600 rpm) and a sealant mixing paddle.
- ▲ Mix for 3-5 minutes to achieve a proper consistency and uniform color
- ▲ Avoid entrapment of air during mixing



## Sealant Installation

### Mixing

- ▲ Scrape down the sides of the pail periodically to ensure all of the material is properly mixed.



# Sealant Installation

## Loading

- ▲ Load sealant directly into a bulk sealant gun directly or use a follower plate system



## Sealant Installation

### Gunning

- ▲ Place nozzle of gun into the bottom of the joint and fill the entire joint



## Sealant Installation

### Gunning

- ▲ Keeping nozzle deep in the sealant, continue a steady flow of sealant preceding the nozzle to avoid air entrapment
- ▲ Avoid overlapping sealant
- ▲ **Coverage:**
  - 1 gallon yields 231 cubic inches of 154 linear feet of  $\frac{1}{2}$ " x  $\frac{1}{4}$ " joint



## Sealant Installation Gunning



When neatness counts always tape off the sides of the joint using Duct Tape.

## Sealant Installation

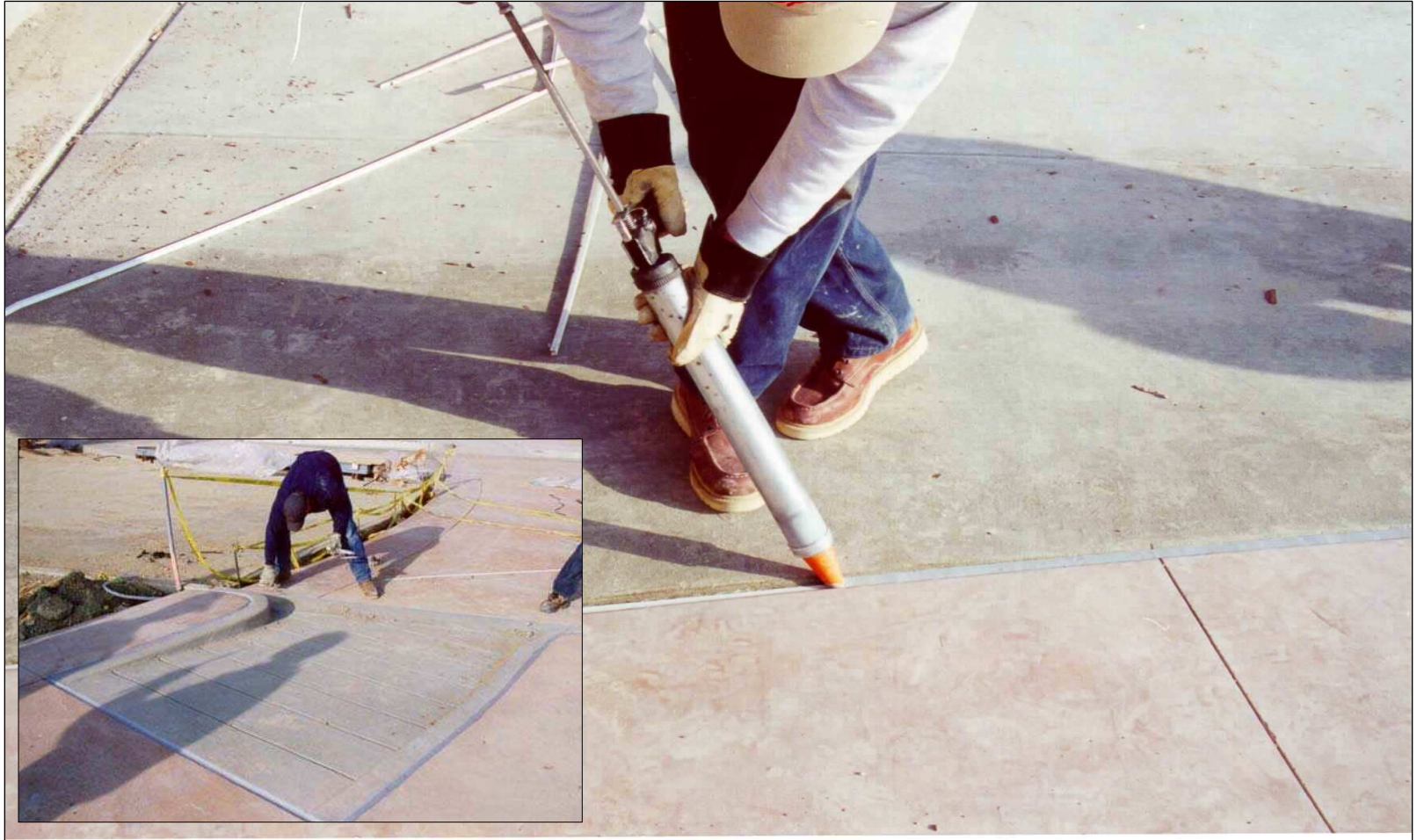
### Gunning



Horizontal applications require excellent adhesion to concrete and self leveling option for flat work. Sealant must handle specified traffic conditions.

# Sealant Installation

## Gunning



## Sealant Installation

### Tooling

- ▲ Dry tool sealant to press material against joint walls or bonding surface

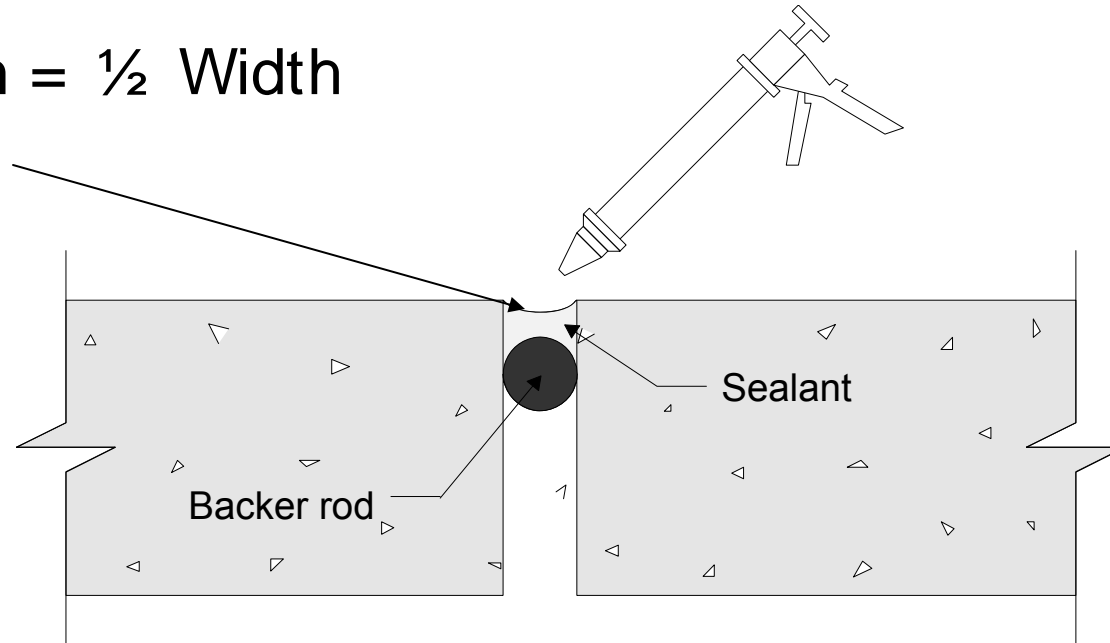




# Sealant Installation

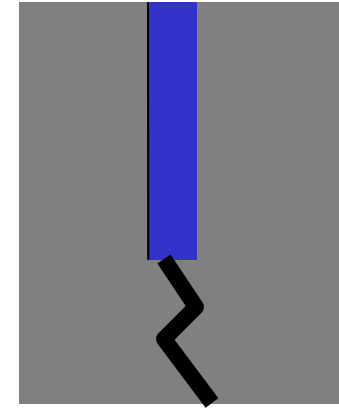
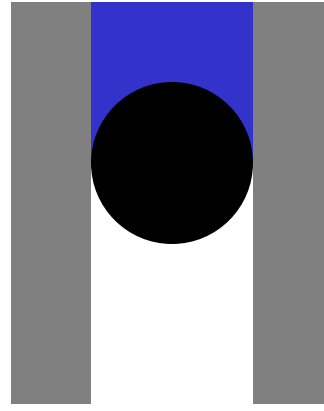
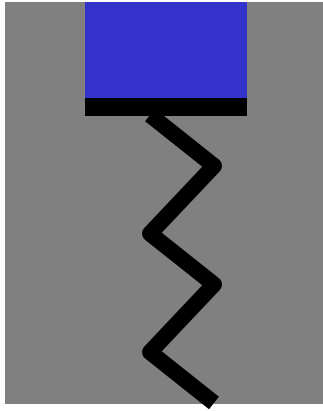
## Joint Design

Depth =  $\frac{1}{2}$  Width



1. Install appropriate backer material to prevent three-sided adhesion and to control sealant depth.
2. Sealant should be gunned into joint at mid-point of designed expansion and contraction to maximize accommodation of movement. Joint dimension of 4X anticipated movement allows proper function of high performance sealants even if applied at temperature extremes.
3. Tool as required to properly fill joints and force sealant against joint interfaces, maximizing bond.

## Sealant Installation Joint Design

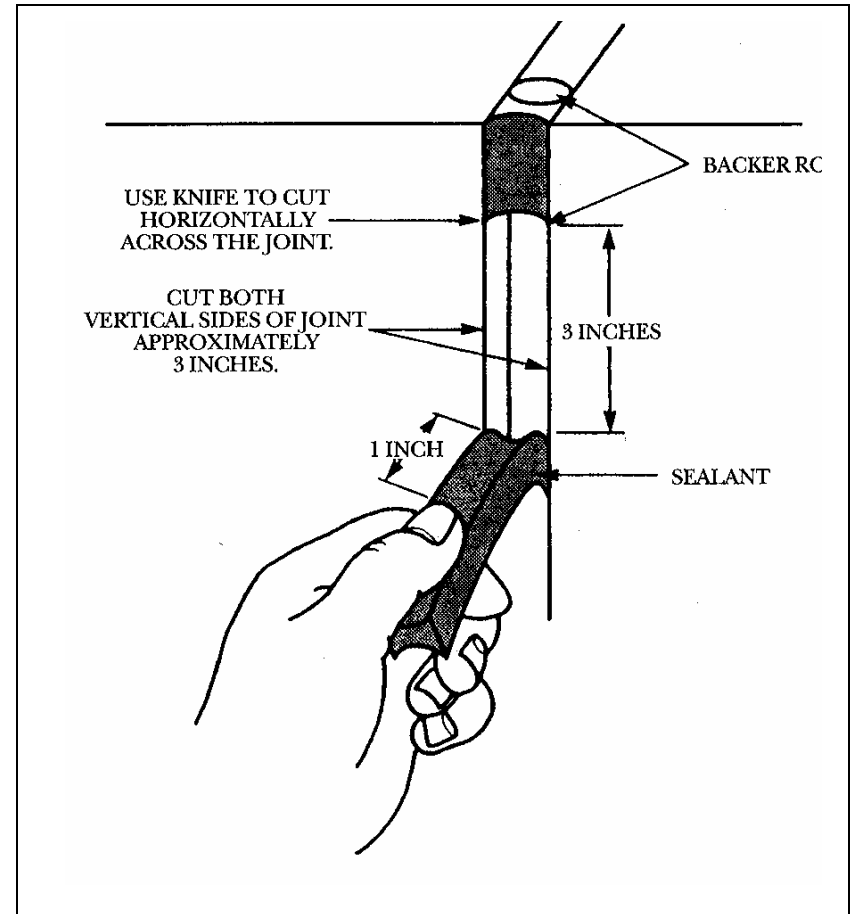


- ▲ 2:1 or 1:1 width:depth
- ▲ Minimum  $\frac{1}{4}$ " x  $\frac{1}{4}$ "
- ▲ Minimum  $\frac{1}{2}$ " depth for traffic
- ▲ 2 sided adhesion, not 3
- ▲ Joint movement to match product

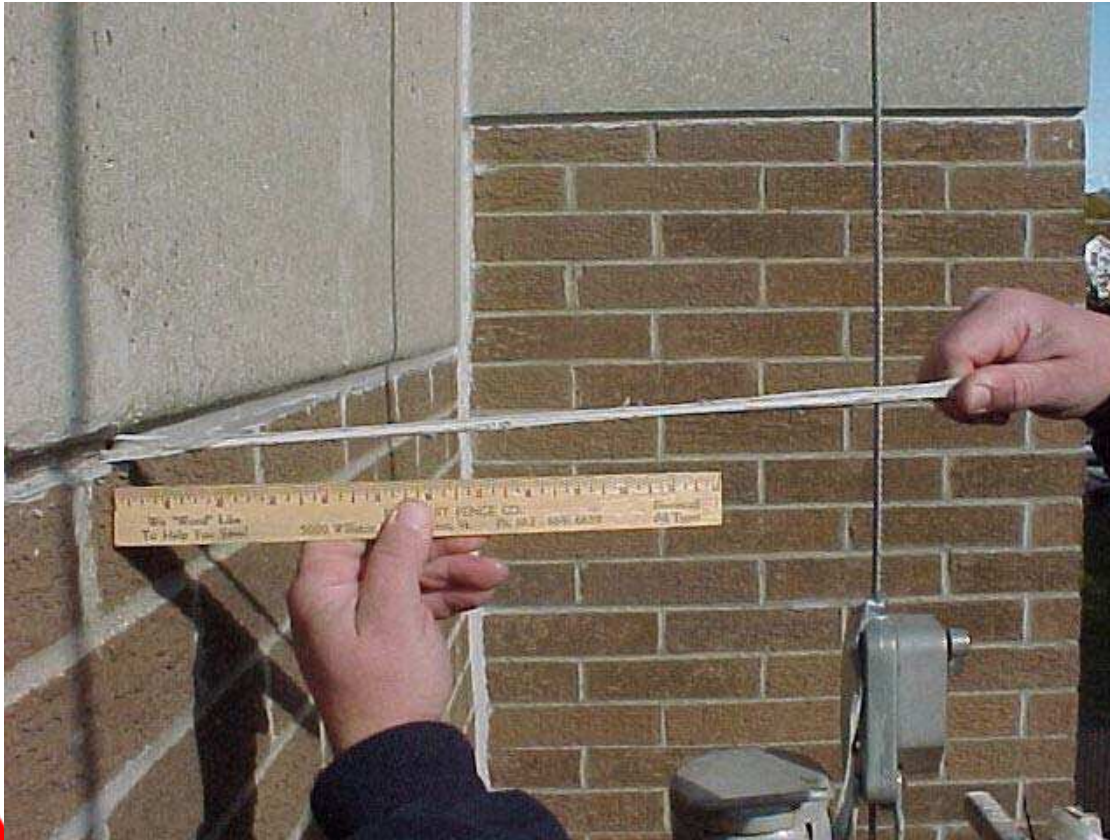
- ▲ Protect nosing
- ▲ Needs support
- ▲ May separate

# Jobsite Mock-Up

- ▲ Jobsite Pull Test:
  - After material has cured to ensure proper bond



## Jobsite Pull Test



Place sealant and allow to cure. Cut a 2-3" piece of the sealant and pull at a 90° angle from the substrate. The sealant should not peel from the joint interface.

# Sikaflex 2c

Sika Technical Data Sheets can be obtained via:

[www.sikaconstruction.com](http://www.sikaconstruction.com)

Refer to data sheets for specific information on each Sika product.

