

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



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

Sika Corporation



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

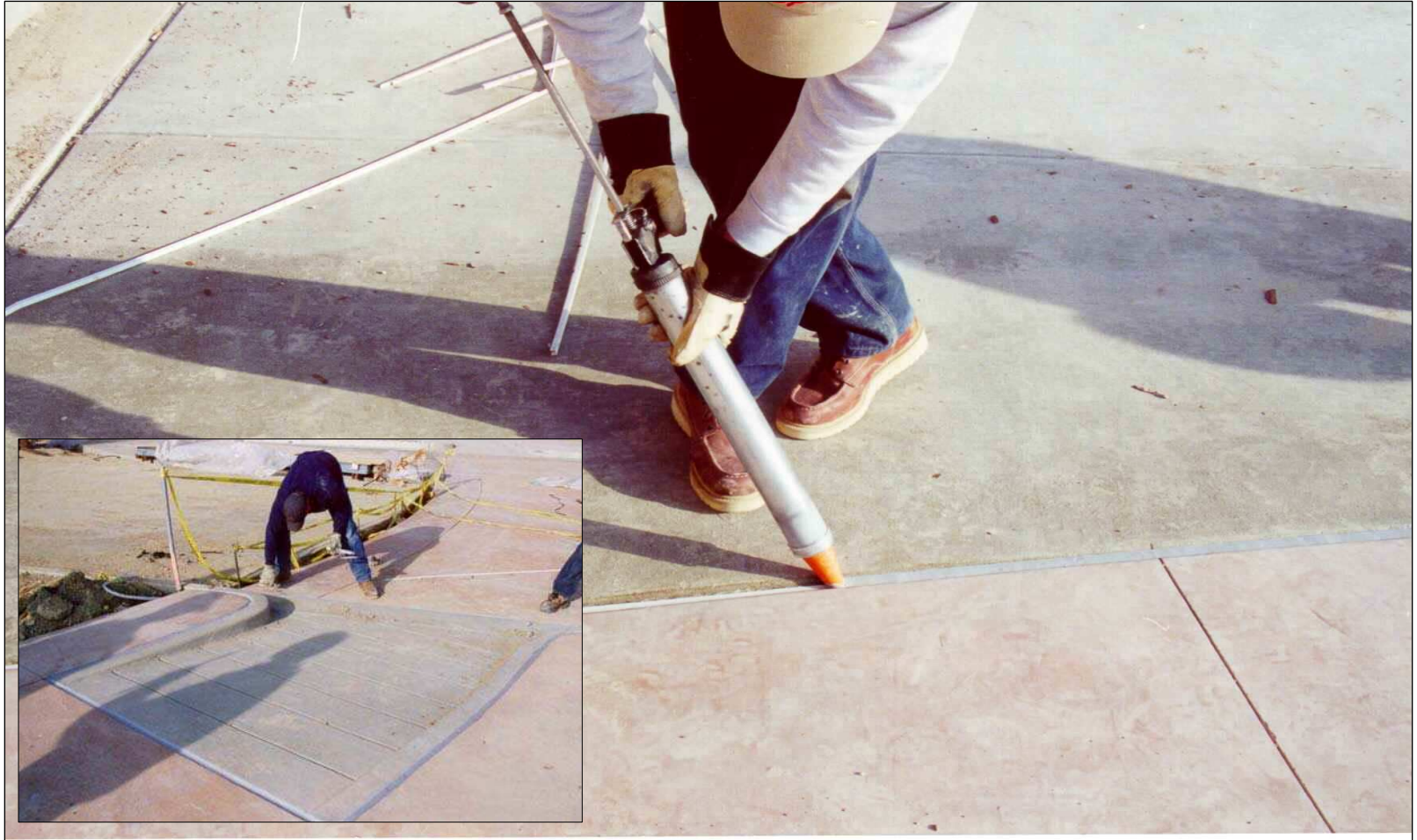
Gunning



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

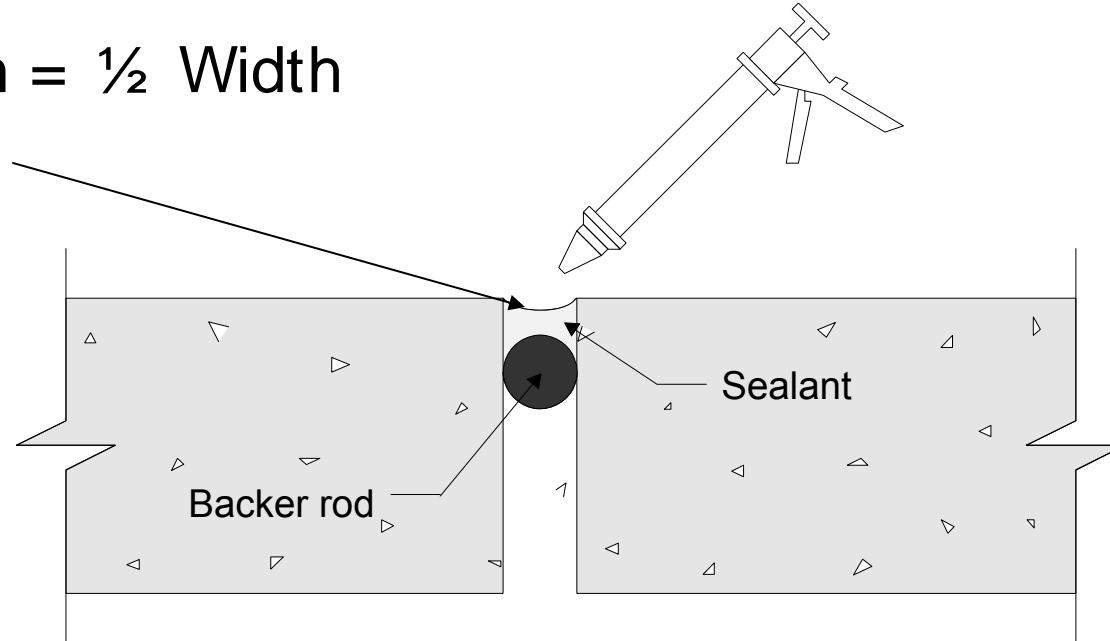
- ▲ Dry tool sealant to press material against joint walls or bonding surface



Sealant Installation

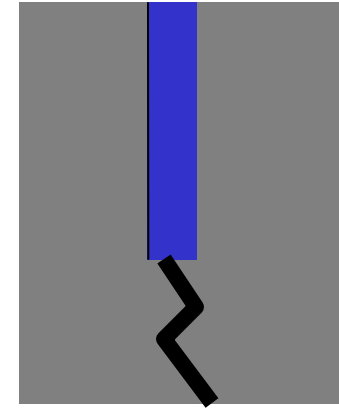
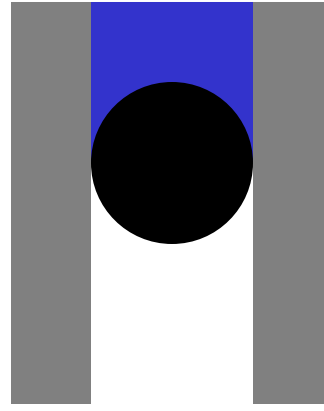
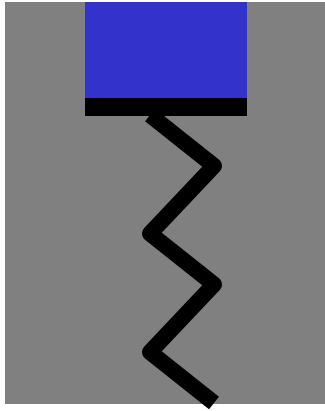
Joint Design

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

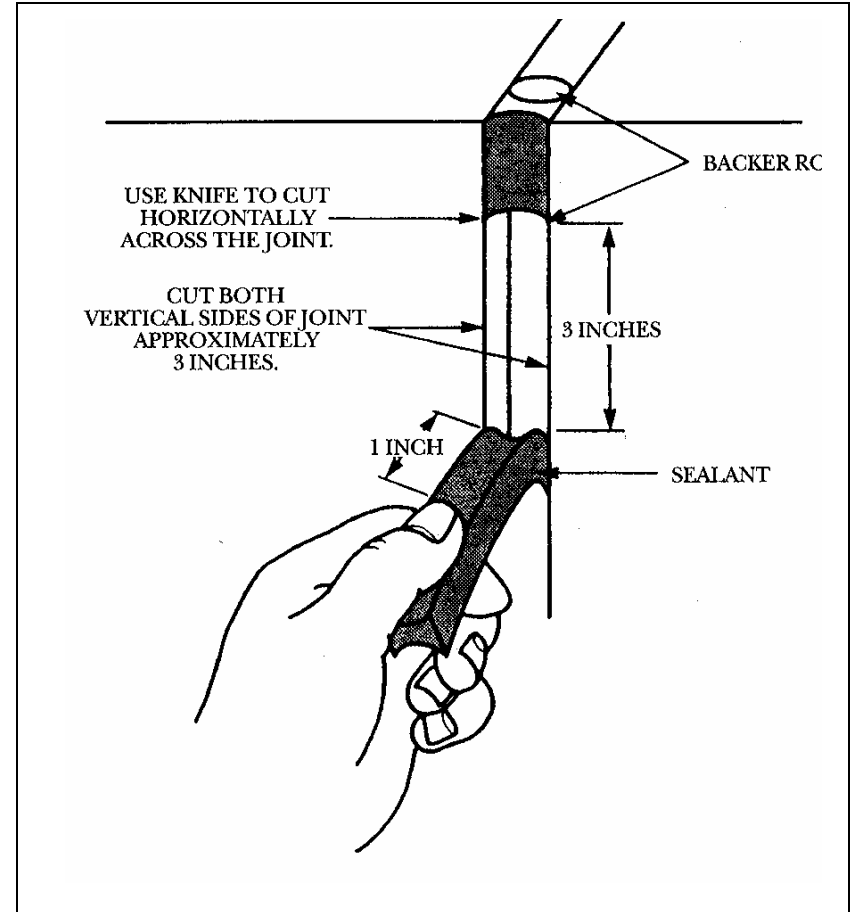


- ▲ 2:1 or 1:1 width:depth
- ▲ Minimum $\frac{1}{4}$ " x $\frac{1}{4}$ "
- ▲ Minimum $\frac{1}{2}$ " depth for traffic
- ▲ 2 sided adhesion, not 3
- ▲ Joint movement to match product

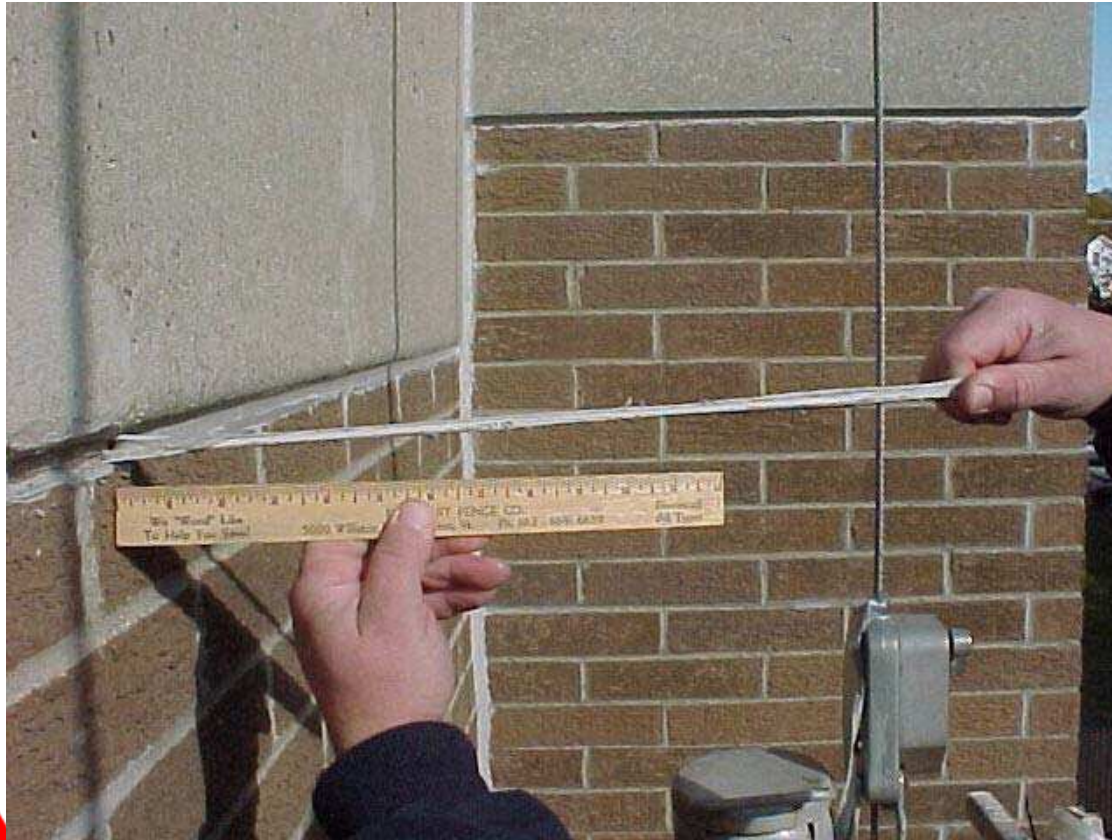
- ▲ Protect nosing
- ▲ Needs support
- ▲ May separate

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

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

