Construction

Sikaflex 15 LM

Application Instructions

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Sikaflex 15 LM

A high-performance, low-modulus elastomeric sealant.

Where to use:

- Excellent for moving joints in vertical applications
- Suitable for use between similar as well as dissimilar materials
- Typical applications include joints in concrete panel and wall systems, around window and door frames, reglets, flashing etc.
- Exceptional sealant choice for high-rise façade applications where high movement capability is required
- As effective sealant for use in Exterior Insulation Finish Systems (EIFS)

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Sikaflex 15LM

High Performance, Low Modulus Elastomeric Sealant

- High movement joints
- Excellent primer-less adhesion to many substrates
- Exceptional cut and tear resistance
- Paintable and sandable
- Non staining
- Proven in tough climates around the world
- ASTM C920 Class 100/50
  - +100/-50% movement
  - SWR Institute Validated
- 16 standard colors
- Cartridges & sausages
  - Pails & drums special order

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- Typical applications include joints in concrete panel and wall systems, around window and door frames, reglets, flashing etc.
- Exceptional sealant choice for high-rise façade applications where high movement capability is required
- As effective sealant for use in Exterior Insulation Finish Systems (EIFS)
- Can be used in silicone applications
  - No primer needed
  - Better against
    - Moisture in the substrate
    - Dirt and dust pick up

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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

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Mechanical Methods

- Wire brushing
- Sand blasting
- Grinding
- Sawing

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Critical Success Factors

Priming

- Priming can help get a better bond in many situations
  - Priming does no 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

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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

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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

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Sealant Installation

Backing Materials

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Sealant Installation

Backing Materials

- Make sure backer rod is 25% larger than joint width (under compression) to offer good tooling base
- No not puncture closed cell backer rod when installing prior to sealant installation
  - Will cause bubbling in sealant

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15 lm Packaging

- 10.1 oz (300 ml) cartridges
  - 24 per case
  - Stocked item
- 20 oz (600 ml) unipack sausages
  - 20 per case
  - Stocked item
- 5 gallon pail with 4.5 gallons
  - 20 L pail with 17 L of material
  - Non stock 3 week lead time
- 55 gallon drum with 50 gallons
  - 200 L drum with 190 L of material
  - Non Stock 3 week lead time

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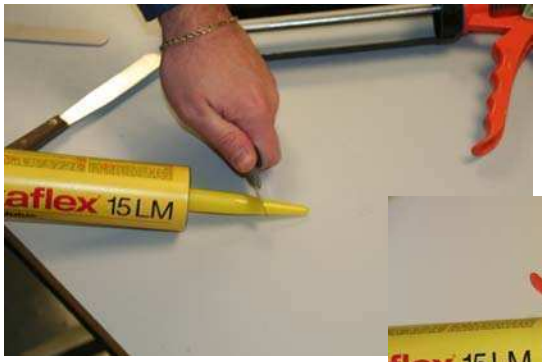
Sealant Installation

Loading

- Cartridge
  - Cut cartridge tip and puncture seal at the nozzle base
  - Load cartridge into caulk gun
- Sausage
  - Load sausage into sausage gun, then cut the metal clip off
  - Attach nozzle



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Gunning

- Place nozzle of gun into the bottom of the joint and fill the entire joint
- Keeping nozzle deep in the sealant, continue a steady flow of sealant preceding the nozzle to avoid air entrapment
- Avoid overlapping sealant
- **Coverage:**
  - 10.1 fl oz yields 12.2 linear feet of ½□x ¼□joint
  - 20 fl oz uni-pac yields 24 linear ft of a ½ □x ¼□joint

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Sealant Installation

Tooling

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

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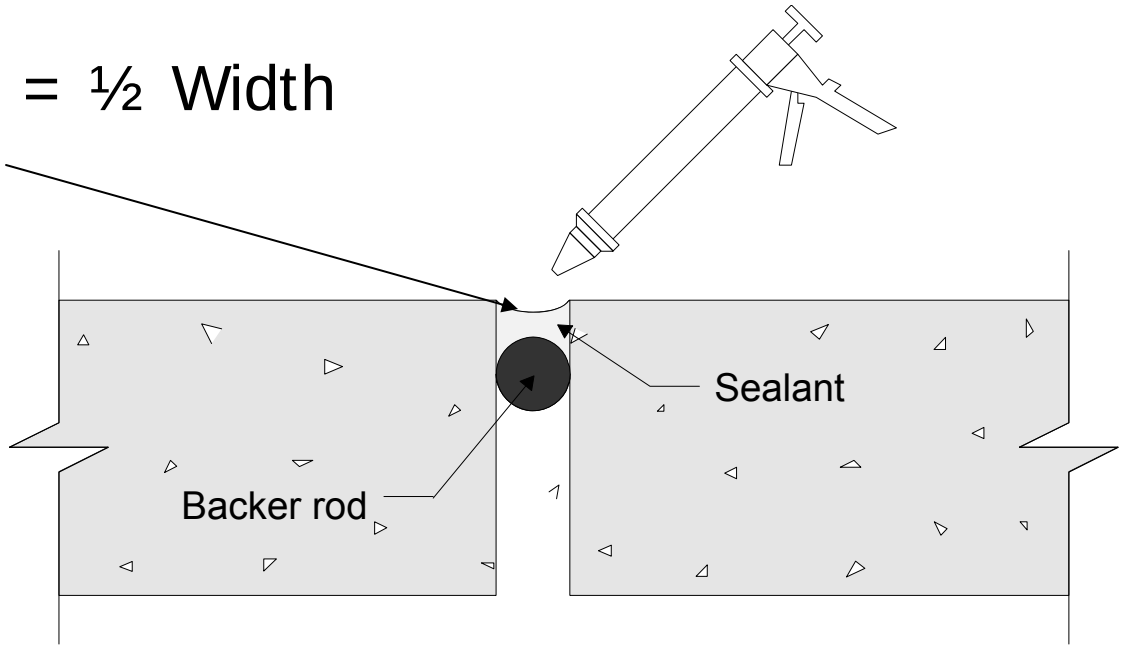
Sealant Installation

Joint Design

Depth = ½ 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.

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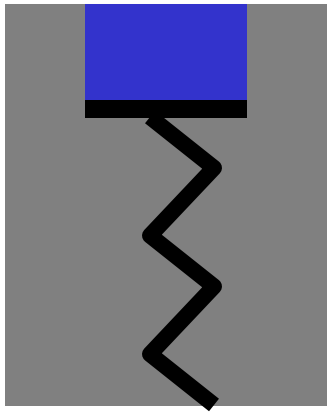
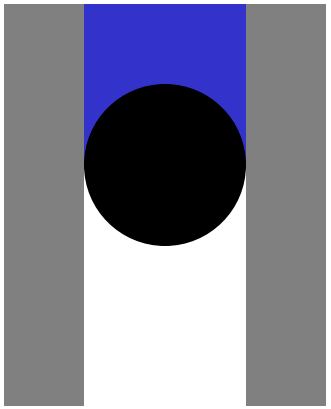
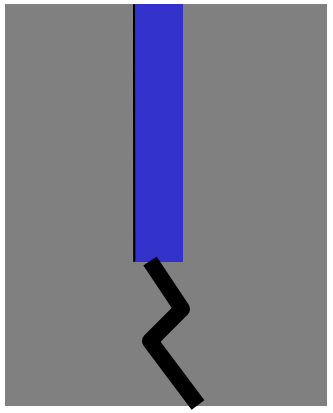
Sealant Installation

Joint Design







- 2:1 or 1:1 width:depth
- Minimum ¼□x ¼□
- Minimum ½□depth for traffic
- 2 sided adhesion, not 3
- Joint movement to match product

- Protect nosing
- Needs support
- May separate

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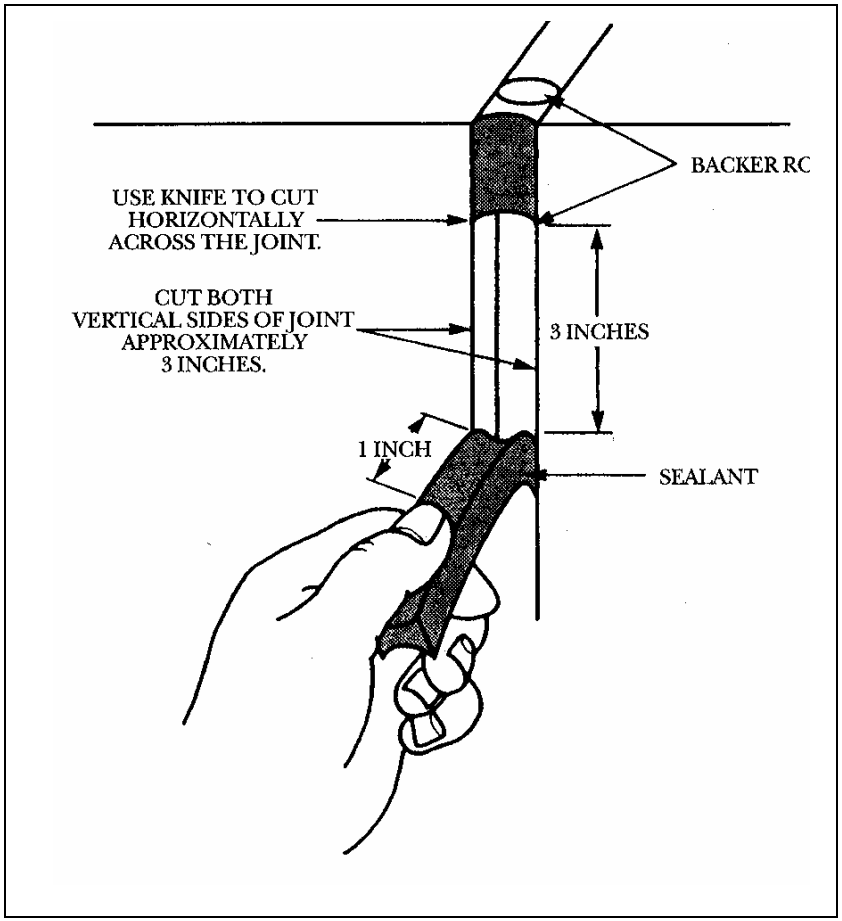
Jobsite Mock-Up

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



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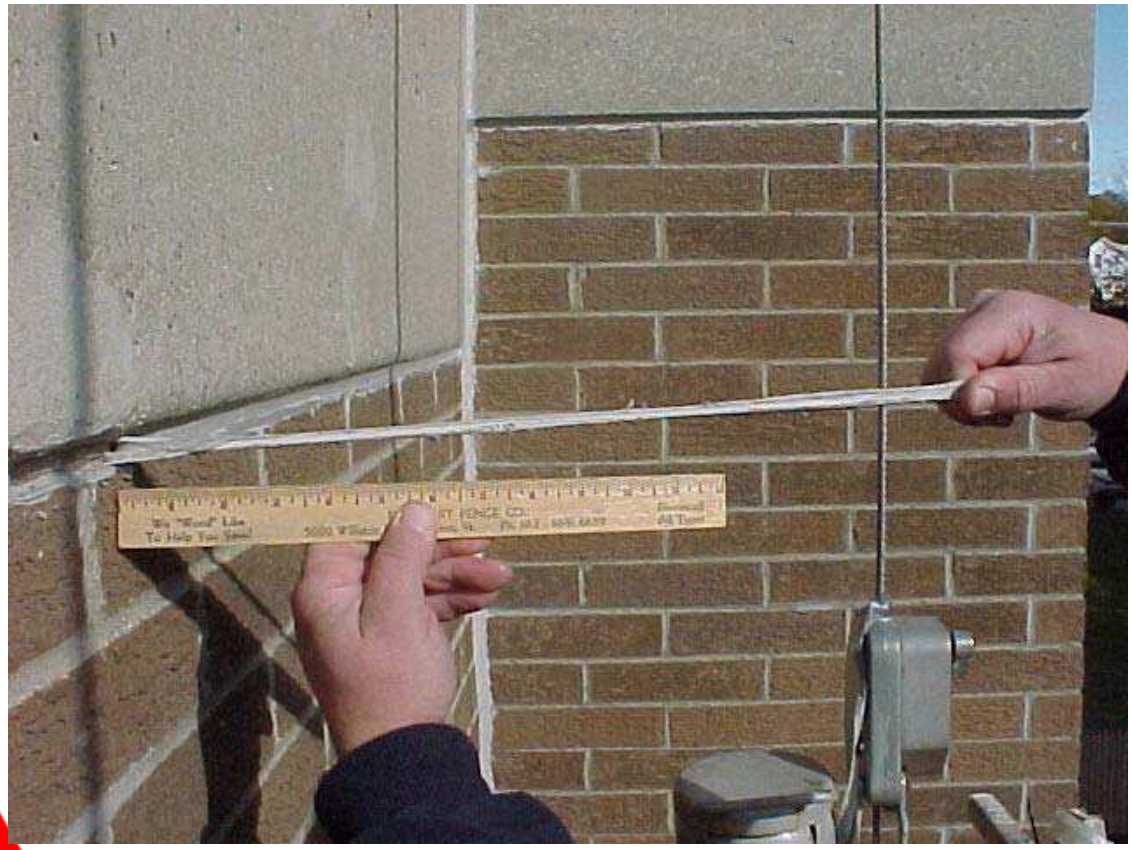
Jobsite Pull Test



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

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Sika Technical Data Sheets can be obtained via:

www.sikaconstruction.com

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