BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-2 C NS

Two-component, non-sag, polyurethane elastomeric sealant

PRODUCT DESCRIPTION

Sikaflex®-2 C NS is a 2-component, premium-grade, polyurethane-based, elastomeric sealant. It is principally a chemical cure in a non-sag consistency. Meets ASTM C-920, Type M, Grade NS, Class 25, use T, NT, M, G, A, O, I and Federal Specification TT-S-00227E, Type II, Class A. Tested in accordance with ASTM C-1382 for use in EIFS systems.

USES

- Intended for use in all properly designed working joints with a minimum depth of 1/4 inch.
- Ideal for vertical and horizontal applications.
- Placeable at temperatures as low as 40 °F.
- Adheres to most substrates commonly found in construction.
- An effective sealant for use in Exterior Insulation Finish Systems (EIFS).
- Submerged environments, such as canal and reservoir joints.

CHARACTERISTICS / ADVANTAGES

- Capable of ±50 % joint movement.
- Chemical cure allows the sealant to be placed in joints exceeding 1/2 in. in depth.
- High elasticity with a tough, durable, flexible consistency.
- Exceptional cut and tear resistance.
- Exceptional adhesion to most substrates without priming.
- Available in 35 architectural colors.
- Color uniformity assured via Color-pak system.
- Available in pre-pigmented Limestone (no Color-pak needed).
- Non-sag even in wide joints.
- Easy to mix.
- Paintable with water-, oil-, and rubber-base paints.
- Jet fuel resistant.

PRODUCT INFORMATION

Packaging	1.5 gal. unit. 3 gal units.
Color	A wide range of architectural colors are available. Special colors available on request.
Shelf Life	One year in original, unopened containers.
Storage Conditions	Store dry at 40–95 °F (4–35 °C). **Condition material to 65–75 °F before using.**

TECHNICAL INFORMATION

Shore Hardness	25 ± 5	(73 °F (23 °C) and 50 % R.H.) (ASTM D-2240)
Tensile Strength	95 psi at Break	(73 °F (23 °C) and 50 % R.H.) (ASTM D-412)
Tensile Stress at Specified Elongation	70 psi at 100 %	(73 °F (23 °C) and 50 % R.H.) (ASTM D-412)
Elongation at Break	500 %	(73 °F (23 °C) and 50 % R.H.) (ASTM D-412)

Adhesion in Peel

Substrate	Peel Strength	% Adhesion Loss	
Concrete	25 lb.	Zero	(73 °F (23 °C) and 50 % R.H.) (Fed Spec. TT-S-00227E)

Tear Strength	45 lb./in. (73 °F (23 °C) and 50 % R.H.) (ASTM D-624)
Chemical Resistance	Good resistance to water, diluted acids, diluted alkalines, and residential sewage. Consult Technical Service at 1-800-933-SIKA for specific data.
Resistance to Weathering	Excellent
Service Temperature	-40 °F to 170 °F (-40 °C to 75 °C).

APPLICATION INFORMATION

Coverage

1 gallon: Yield in Linear feet

Width/Depth	1/4"	3/8"	1/2"
1/4"	307.9		
3/8"	205.3	136.8	
1/2"	153.9	102.6	77.0
3/4"	102.6	68.4	51.3
1"			38.5
1.25"			30.8
1.5"			25.7

Ambient Air Temperature	40 °F to 100 °F. Sealant should be installed when joint is at midrange of its anticipated movement.
Substrate Temperature	40 °F to 100 °F. Sealant should be installed when joint is at midrange of its anticipated movement.
Pot Life	3–4 hrs.

Curing Rate

Tack-Free Time	6–8 hrs.	(ASTM C-679)
Final Cure	3 days	

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All joint-wall surfaces must be clean, sound, and frost-free. Joint walls must be free of oils, grease, curing compound residues, and any other foreign matter that might prevent bond. Ideally this should be accomplished by mechanical means. Bond breaker tape or backer rod must be used in bottom of joint to prevent bond.

Priming is typically not necessary. Most substrates only require priming if sealant will be subjected to water immersion after cure. Testing should be done, however, on questionable substrates, to determine if priming is needed. Consult Technical Service or Sikaflex Primer Technical Data Sheet for additional information on priming. Note: Most Exterior Insulation Finish Systems (EIFS) manufacturers recommend the use of a primer. When EIFS manufacturer specifies a primer or if on-site bond testing indicates a primer is necessary, Sikaflex 429 primer is recommended. On-site adhesion testing is recommended with final system prior to the start of a job.

MIXING

Pour entire contents of Component 'B' into pail of Component 'A'. Add entire contents of Color-pak into pail and mix with a low-speed drill (400–600 rpm) and Sikaflex paddle.* Mix for 3-5 minutes to achieve a uniform color and consistency. Scrape down sides of pail periodically. Avoid entrapment of air during mixing. When mixing in cold weather (<50 °F), do not force the mixing paddle to the bottom of the pail. After adding Component 'B' and Color-pak into Component 'A', mix the top 1/2 to 3/4 of the pail during the first minute of mixing. After scraping down the sides of the pail, mix again for another minute. The paddle should reach the bottom of the pail between the first and second minute of mixing. Scrape down the sides of the pail a second time and then mix for an additional 2-3 minutes until the sealant is well blended. Color-pak must be used with tint base. For pre-pigmented Limestone base, just mix with low speed drill and Sikaflex paddle (no Color-pak needed).

APPLICATION METHOD / TOOLS

Recommended application temperatures 40–100 °F. Pre-conditioning units to approximately 70 °F is necessary when working
at extremes. Move pre-conditioned units to work areas just prior to application. Apply sealant only to clean, sound, dry, and frost-free substrates. Sikaflex-2c should be applied into joints when joint slot is at mid-point of its designed expansion and contraction. To place, load directly into bulk gun or use a follower plate loading system. Place nozzle of gun into bottom of joint and fill entire joint. Keeping the nozzle deep in the sealant, continue with a steady flow of sealant preceding nozzle to avoid air entrapment. Also, avoid overlapping of sealant since this also entraps air. Joint dimension should allow for 1/4 inch minimum and 1/2 inch maximum thickness for sealant. Proper design is 2:1 width to depth ratio. Tool sealant to ensure full contact with joint walls and remove air entrapment.

LIMITATIONS

- The ultimate performance of Sikaflex®-2 C NS depends on good joint design and proper application.
- Minimum depth in working joint is 1/4 in.
- Maximum expansion and contraction should not exceed 50 % of average joint width.
- Do not cure in the presence of curing silicones.
- Avoid contact with alcohol and other solvent cleaners during cure.
- Allow 3 day cure before subjecting sealant to total water immersion. Primer is required if sealant will be subjected to total water immersion.
- Avoid exposure to high levels of chlorine. (Maximum level is 5 ppm).
- Do not apply when moisture vapor transmission exists since this can cause bubbling within the sealant.
- Avoid over-mixing sealant.
- White color tends to yellow slightly when exposed to ultraviolet rays.
- Light colors can yellow if exposed to direct gas fired heating elements.
- When overcoating: an on-site test is recommended to determine actual compatibility.
- Rigid paints, coatings or primers will crack when placed over elastomeric sealants experiencing expansion or contraction
- The depth of sealant in horizontal joints subject to traffic is 1/2 inch.
- When used in areas with heavy traffic either recess joint or use TG (Traffic Grade) Additive to increase durability.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

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