BUILDING TRUST
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PRODUCT DATA SHEET

Sikaflex®-2c NS Arctic

Two-component, non-sag, polyurethane elastomeric sealant for arctic weather applications

PRODUCT DESCRIPTION

Sikaflex®-2c NS Arctic is a 2-component, premium-grade, polyurethane based, elastomeric sealant formulated for cold weather applications. It is principally a chemical cure in a non-sag consistency. Available in a wide range of architectural colours with convenient colour paks. Meets ASTM C-920, Type M, Grade NS, Class 25, use T, NT, M, G, A, O and Federal Specification TT-S-00227E, Type II, Class A. Meets CAN/CGSB 19.24 - M90.

WHERE TO USE

- Intended for use in all properly designed working joints with a minimum depth of 1/4 inch.
- Ideal for vertical and horizontal applications.
- Adheres to most substrates commonly found in construction.
- Mixable and placeable at temperatures as low as -10 °C (+15 °F)
- Submerged environments, such as canal and reservoir joints.
- An effective sealant for use in Exterior Insulation Finish Systems (EIFS).

CHARACTERISTICS / ADVANTAGES

- Easy to mix, gun, tool down to -10 °C (+15 °F)
- At extreme cold temperatures the material will continue to be workable, gunable and toolable
- Chemical cure allows the sealant to placed in greater depths for non-moving joints/cracks
- High elasticity with a tough, durable, flexible consistency
- Exceptional adhesion to most substrates without priming
- Exceptional cut and tear resistance
- Available in 35 standard architectural colours
- Colour uniformity via Color-pak system
- Capable of +/- 50 % Movement
- Non-sag even in wide joints
- Paintable with water, oil, and rubber based paints

PRODUCT INFORMATION

Packaging	5.7 L unit (1.5 US gal.)
Shelf Life	One year in origonal, unopened containers.
Storage Conditions	Store dry at -9.4 °C to +35 °C (+15 °F to +85 °F). Condition material to -9.4 °C to 10 °C (+15 °F to +50 °F) before using.
Colour	Available in a wide range of architectural colours are available. Special colors available on request.

TECHNICAL INFORMATION

Shore A Hardness	-10 °C (+15 °F)	+23 °C (+73 °C)	
	28	14	
Tensile Strength	**-10 °C (+15 °F)**	**+23 °C (+73 °F)**	(ASTM D-412)
	0.31 MPa (45 psi)	0.50 MPa (73 psi)	
Elongation at Break	**-10 °C (+15 °F)**	**+23 °C (+73 °F)**	(ASTM D-412)
	450 %	540 %	
	Extension at Break		
	-10 °C (+15 °F)	**+23 °C (+73 °F)**	(ASTM C-1135)
	295 %	640 %	
	100 % E-Modulus		
	-10 °C (+15 °F)	**+23 °C (+73 °F)**	(-)
	58 %	15 %	
Elongation at Maximum Tensile Stress	**-10 °C (+15 °F)**	**+23 °C (+73 °F)**	(ASTM C-1135)
	275 %	600 %	
Pull-Off Strength	**-10 °C (+15 °F)**	**+23 °C (+73 °F)**	(ASTM C-1135)
	0.60 MPa (87 psi)	0.50 MPa (73 psi)	
Tear Strength	**-10 °C (+15 °F)**	**+23 °C (+73 °F)**	(ASTM D-624)
	5.6 N/mm (32 lbf/in)	4.0 N/mm (23 lbf/in)	
	Tear Strain at Max. Stress		
	-10 °C (+15 °F)	**+23 °C (+73 °F)**	(-)
	1.59 MPa (230 psi)	3.93 MPa (570 psi)	
Service Temperature	-40 ºC to +75 ºC (-40 ºF to +170 ºF)		
Chemical Resistance	Good resistance to water, diluted acids, diluted alka lines, and residential sewage. Consult Sika Canada Technical Service for specific data.		
Resistance to Weathering	Excellent		

APPLICATION INFORMATION

Consumption

1 L: Yield in Linear meter

Width/Depth mm (in)	**6 (1/4")**	**10 (3/8")**	**13 (1/2")**
6 (1/4")	24.4		
10 (3/8")	16.3	10.8	
13 (1/2")	12.2	8.1	6.1
19 (3/4")	8.1	5.2	4.1
25 (1")			3.0
32 (1.25")			2.4
38 (1.5")			2.0

Ambient Air Temperature	-9.4 °C to +10 °C (+15 °F to +50 °F)	
Substrate Temperature	-9.4 °C to +10 °C (+15 °F to +50 °F)	
Pot Life	**-10 °C (+15 °F)**	**+23 °C (+73 °F)**
	14 hours	3 hours

Curing Time	-10 °C (+15 °F)	+23 °C (+73 °F)
	3 to 4 days	6 to 8 days

Tack-free time	-10 °C (+15 °F)	+23 °C (+73 °F)
	3 hours	6 hours

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

LIMITATIONS

- The ultimate performance of Sikaflex®-2c NS Arctic depends on good joint design and proper application.
- Minimum depth in working joint is 6mm (1/4 in).
- Do not cure in the presence of curing silicones.
- Avoid contact with alcohol and other solvent cleaners during cure.
- Allow 5 day cure before subjecting sealant 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.
- Light colour tends to yellow slightly when exposed to ultraviolet rays.
- Light colour can yellow if exposed to direct gas fired heating elements.
- When overcoating: an on-site test is recommended to determine actual compatibility.
- Do not use in contact with bituminous/asphaltic materials

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All joint-wall surfaces must be clean, dry, sound, and frost-free. Use mechanical means (i.e. sandblasting, surface grinding) to remove oils, grease, curing compound residues, and any other foreign matter from joint walls that might prevent bond. Bond breaker tape or backer rod must be used in the bottom of the joint to prevent three sided adhesion.

Priming: Priming is typically not necessary. Most substrates only require a primer if sealant will be subject to water immersion after cure. Test questionable substrates to determine if priming is needed. Consult Sikaflex Primer Technical Data Sheet for additional information.
Note: Most Exterior Insulation Finish Systems (EIFS) manufacturers recommend the use of a primer. When EIFS manufacturer specifies a primer Sikaflex 429 primer is recommended.

MIXING

Pour entire contents of Component 'B' into pail of component 'A'. Add entire contents of colour Pak. Mix with a slow speed drill (400–600 rpm) and Sikaflex sealant mixing paddle (or other sealant paddle with rounded edges). Mix for 3–5 minutes to achieve a uniform colour and consistency. Scrape down the side periodically to ensure all of the material is mixed. Avoid over-mixing and entrapment of air when mixing.
colour pak must be used with tint base.

APPLICATION METHOD / TOOLS

Recommended application temperatures: -9.4 °C to +10 °C (+15 °F to +50 °F). Move preconditioned units to work areas just prior to application. 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 to ensure full contact with joint walls and remove air entrapment. Also, avoid overlapping sealant since this also entraps air. Tool sealant to ensure full contact with joint walls and remove air entrapment. Joint dimension should allow for 6mm (1/4 inch) minimum and 13mm (1/2 inch) maximum thickness for sealant. Proper design 2:1 width to depth ratio.

CLEAN UP

Uncured material can be removed from equipment and tools using Sika® Urethane Thinner and Cleaner. Cured material can only be removed manually or mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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