



Sil 728 NS

Non-Sag, Ultra Low Modulus
Highway/Parking Garage
Neutral Cure Silicone Sealant

Technical Data Sheet

DESCRIPTION

BONDAFLEX Sil 728 NS is a non-sag, one-component, ultra low modulus elastomeric, neutral cure silicone sealant. Meets the requirements of ASTM D-5893; ASTM C-920, Type S, Grade NS, Class 100/50, Use NT, T, M, G, A, O with an ultra low Shore Hardness; TT-S-00230C, Type II, Class A; TT-S-001543A, Class A and California Air Resources Board 2003 requirements for Volatile Organic Compound content.

WHERE TO USE

Construction Application

- Highway joints
- Parking garages
- Plaza decks
- Drive ways
- Pitch pans
- Other roofing applications
- Decks
- Expansion joints
- Saw cut joints

Structure

- Highways
- Bridges
- Parking garages
- Plazas
- Stadiums

Location

- Horizontal
- Interior and exterior
- Above grade or on grade

Substrate

- Concrete, steel, glass, aluminum, tile, fiberglass, plastic, ceramic, masonry, brick, stone, granite and wood

FEATURES

- Unaffected by most atmospheric conditions
- Resistant to road salts
- Ultra low modulus
- Joint movement +100 / -50%
- Excellent adhesion
- One-component
- Non-sag
- Fast curing
- Excellent gunnability in all temperatures
- Jet fuel resistant

BENEFITS

- Extremely long service life
- Ideal for cold climates
- Excellent flexibility for extreme high and low temperature conditions
- Excellent flexibility for dynamic joint movement
- Bonds to most substrates without priming including Kynar and anodized aluminum
- Ready to use, labor cost reduction
- Excellent for vertical joints
- More productivity
- All season ease of application
- Excellent for use on runways and tarmacs

TYPICAL PROPERTIES

Cured 7 days @ 77°F (25°C) and 50% RH

		TEST METHOD
Movement Capability, %	+100 / -50	ASTM C-719
100% Modulus, psi (MPa)	35 (0.24)	ASTM D-412
Hardness, Shore OO	35	ASTM C-661
Tensile Strength, psi (MPa)	150 (1.03)	ASTM D-412
Elongation at Break, %	1000	ASTM D-412
Peel Strength, pli	40	ASTM C-794
Bond Durability on glass, aluminum and concrete	+100 / -50%	ASTM C-719
Accelerated Weathering 10,000 hrs.	No change	QUV Weatherometer
<u>Uncured</u>		
Skin-Over Time	15 min.	MNA Method
Tack-Free Time	30 min.	ASTM C-679
Cure Rate	1/16 inch/24 hrs.	MNA Method
Extrusion Rate g/min 1/8" orifice @ 50 psi	230	ASTM C-1183 modified
Slump of Sealants	nil	ASTM D-2202
Rheological, Vertical @ 120°F (49°C)	non-sag	ASTM C-639
Volatile Organic Content:	1.64 % by wt. 21 g/L 0.18 lbs/gal	
Service Temperature	-80° to 350°F -62.2° to 176.6°C	

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

PACKAGING

- 4.5 gal (17 L) in a 5 gal pail
- 52 gal (197 L) in 55 gal drum

Special packaging available upon request – ask your local Representative for more information.

STORAGE/SHELF LIFE

When stored in the original, unopened containers at or below 90°F (32°C), shelf life is one year. A product skin may form in pails and drums, remove prior to use.

COLORS

Charcoal Gray. Custom colors are available upon request – ask your local Representative for more information.

EXPANSION JOINT DESIGN

1. The number of joints and the joint width should be designed for a recommended joint movement of +50% and -25% at time of installation.
2. The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 1/2 inch (13mm) and the minimum is 3/8 inch (6mm). For joints greater than one inch (25.4mm), do not exceed 1/2 inch (13mm) in depth.
3. To control joint depth, use closed cell polyethylene or non-gassing polyolefin backer rod. If joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion.
3. Closed cell backer rod should be 25% larger than joint width; do not compress more than 40%.

SURFACE PREPARATION

The substrate must be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion.

POROUS SUBSTRATES – clean by mechanical methods to expose a sound surface free of contamination and laitance.

NON-POROUS SUBSTRATES – for cleaning non-porous substrates, use two rag wipe method using xylene or an approved commercial solvent. Allow solvent to evaporate prior to sealant application.

PRIMING

BONDAFLEX Sil 728 NS is designed to obtain adhesion without the use of a primer; however, certain substrates may require a primer. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. Refer to Technical Data Sheet for primers **BONDAFLEX Sil 2000**, **BONDAFLEX Sil 2100** or **BONDAFLEX Sil 2300** and contact Technical Service for additional information.

APPLICATION

Expansion Joint

1. Ready to use, apply using professional caulking gun or dispensing equipment. Do not open product container until preparation work has been completed.
2. Apply sealant using consistent, positive pressure to force sealant into the joint.
3. Apply the sealant so that it is recessed 1/8 inch (3mm) below the surface. For parking deck joints, recess 1/4 inch (6mm). For highway joints, recess 1/2 inch (13mm).
4. Tool sealant to create a concave joint shape and maximum adhesion. Dry tooling is recommended. DO NOT use soapy water or other liquids when tooling.
5. Consult full application guide for further information.

CLEAN UP

Remove excess sealant from substrate while uncured using a commercial solvent, such as xylene. Cured sealant may be removed by mechanical means.

LIMITATIONS

- Do not allow sealant to come in contact with solvent during cure.
- Do not allow sealant to come in contact with curing polyurethane sealants during cure.
- Not intended for immersion.
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean. Contact Technical Service for more information.

- Contact May National prior to using in joints over three inches (76 mm) wide.
- Not intended for structural glazing.
- Not recommended for absorptive surfaces such as limestone or marble where staining may occur.
- Do not apply to surfaces that will be painted.
- Do not apply to substrates that bleed oil, plasticizers or solvent.
- Do not apply to damp or wet substrates.
- Lower temperature and humidity will extend tack free and cure rates.
- Allow treated wood to age six months before application.
- Brass and copper may be discolored. Test apply prior to application.
- Test sensitive substrates, such as mirror backings for compatibility before use.

FIRST AID

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION. Refer to Material Safety Data Sheet (MSDS) for further information.

PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN. Use only with adequate ventilation. Keep container closed. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

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