LOXON™ NS2

Two Component Non-Sag Smooth Polyurethane Sealant

PRODUCT DESCRIPTION

Loxon™ NS2 is a two-component, non-sag, highly flexible, non-priming, high performance polyurethane sealant. It provides up to 50% total joint movement and can be tinted to multiple colors.

- Chemical cure provides for faster turnaround time
- Suitable for water immersion
- Weather resistant for long-lasting weathertight seals
- Easy to gun and tool - speeds up application
- Long pot life extends working time
- Formulated to withstand pedestrian and vehicular traffic
- No primer required for most construction materials, lowering installation costs
- Wide temperature application range-suitable for all climates.

Meets or exceeds the following specifications:

- ASTM C-920, Type M, Grade NS, Class 25, Use: NT, T, A, M, O and I
- Federal Specification TT-S-00227E, Type II, Class A

PRODUCT AVAILABILITY*

Sales #	SKU / Rex	Color	Size
6508-62279	LX2KS41GX	Limestone	1.5 Gal
6509-72847	LX2KS4130	Limestone	3.0 Gal
6508-62295	LX2KS03GX	Tint Base	1.5 Gal

*Not all products are stocked in all DSCs.

APPLICATIONS

Interior & exterior, expansion joints, aluminum and wood window frames, above & below grade, parking structures, immersed in water, panel walls, precast units, roofing, fascia, parapets, vinyl siding and storefront assemblies.

SUBSTRATES

Cementitious board, masonry, stucco, concrete, wood, vinyl, aluminum, steel, ceramics, clay and concrete roof tiles and natural stone.

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: Sherwin Williams®
Product: Loxon™ NS2 Two Component Non-Sag Smooth Polyurethane Sealant

C719: Pass ✔ Ext:+25% Comp:-25%

Substrate: Primed Mortar; Unprimed Glass, Aluminum *[Primer Coat Loxon™ Quick Dry Primer was applied to mortar substrate]*

Validation Date: 6/26/18 - 6/25/23

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SEALANT VALIDATION
www.swrionline.org

ASTM TEST DATA

TABLE 1: TYPICAL UNCURED PROPERTIES*

Property	Value	Test Method
Tack free time	<48 hours	TT-S-00230C/ASTM C679
Curing time @ 75° F, 50% relative humidity	Skins: 3-4 hours, Full cure: approx one week	Varies with relative humidity
Flow, sag or slump	Passes	TT-S-00230C/ASTM C639
Staining	Passes	TT-S-00230C/ASTM C510

TABLE 2: TYPICAL PROPERTIES (After full cure at 75° F & 50% RH)

Property	Value	Test Method
Hardness (Shore A)	27+/-2	ASTM 02240/ASTM C661
Tensile Strength	160 psi	ASTM D412
Elongation	280%	ASTM D412
Adhesion in Peel	>10	TT-S-00230C/ASTM C794
Staining	Passes	TT-S-00230C/ASTM C510
Ozone Resistance	Good	
Joint Movement Capability	+/-25%	TT-S-00230C/ASTM C719
UV Resistance	Good	ASTM C793

*Values given are not intended to be used in specification preparation.

The physical properties of fully cured Loxon™ NS2 will remain relatively unchanged over a temperature range of -40° F to 180° F.

LIMITATIONS

Not recommended for:

a) Joints contaminated with grease, wax, corrosion, bitumen or cement laitance.
b) Horizontal joints in floors or decks where abrasion or physical abuse is encountered.
c) Special architectural finishes without proper testing.

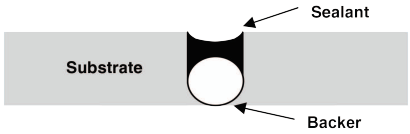
Loxon™ NS2 sealant should be dry tooled. Tooling techniques using solvents or soapy solutions are not recommended.
All surfaces must be evaluated for adhesion prior to use. Not designed as a glazing sealant in which the adhesive bond to glass is exposed to sunlight. The user or specifier should establish that any application in glazing will not expose the glass bond to appreciable amounts of ultraviolet radiation.
The surface of Loxon™ NS2 sealant, when exposed to UV rays and sunlight, will yellow and not retain its gloss. This may occur within a few weeks after exposure. The change of color is limited to the surface layer of the seal and should not compromise the sealing properties of the Loxon™ NS2 if the dimensions of the joint are proper and the sealant is otherwise properly applied. In areas where color retention is critical, please refer to Loxon™ H1.
Loxon™ NS2 will remain tacky for a few hours and attract dust and dirt from the jobsite which may affect the appearance of the sealant. Check tack-free time to prevent dirt pickup. Dampness and porous substrates with high moisture will trigger extensive curing of the sealant within a very short period of time. This may cause an excess of bubbling and foaming within the sealant and at the bottom of the bead.
During the cure time of Loxon™ NS2, do not expose to curing silicone sealants, curing Loxon™ H1, alcohol based materials or solvents, acids, or solvent-based materials.
Until the sealant is fully cured, do not expose the sealant to any mechanical stress. Uncured sealant will not respond properly to cyclic expansion and contraction of the joint specified for the cured sealant only.
Loxon™ NS2 must not be used to seal narrow joints, fillet joints, and face nail holes.
Smearing and feathering Loxon™ NS2 over joints is not recommended.
Lower relative humidity and temperature will significantly extend the curing time. Confined areas, deep joints and moisture barrier substrates may also extend the cure time.

TECHNICAL DATA:

Loxon™ NS2 exhibits excellent weatherability when exposed to ultraviolet radiation, atmospheric hydrocarbons and extremes in temperature. Joints designed to accommodate 50% total joint movement will not affect the seal or adhesion bond.
Joints properly designed and sealed will extend and compress a total of 50% of the installation width with no more than 25% movement in a single direction.
Cured sealant can be painted with emulsion or synthetic enamel paints. Loxon™ NS2 will be virtually unaffected by contact with water after cure on non-porous substrates.
On porous substrates, priming is recommended if the sealant will be subjected to prolonged periods of immersion.
PRECAUTIONS: IF THIS PRODUCT IS USED IN DIRECT CONTACT WITH ANY OTHER SEALANT OR ELASTOMER A COMPATIBILITY TEST MUST BE CONDUCTED, BY PURCHASER OR USER, PRIOR TO ACCEPTANCE. LOXON™ NS2 SEALANT IS NOT COMPATIBLE WITH OXIME CONTAINING SILICONE SEALANTS.

INSTALLATION: JOINT DESIGN AND PREPARATION

Joint design depends on a variety of factors, such as the maximum expansion and contraction of the substrate from thermal change. Recommended maximum joint width should not exceed 3" (3.000") (7.62cm) and the maximum joint depth should not exceed ½" (0.500") (12.69mm). Minimum joint width should not be less than ¼" (0.250") (0.34mm). The sealant depth should be ¼" (0.34mm) for joints ¼" in width. For joints over ¼" in width, depth should be ½ of the joint width but should not exceed ½" (0.500") (12.69mm) in depth. In order to obtain the recommended sealant mass, the joint should be filled with closed cell backer rod first, leaving the proper depth to be filled with sealant. Desirable backer rod materials are polyethylene or polyethylene non-gassing foamed rod. Do not prime or puncture the closed cell structure of polyethylene rod as bubbles could form and migrate to the surface of the curing sealant. The use of open cell backer rod is not recommended. In situations where joint depth does not allow for use of backer rod, bond breaker (polyethelene strip) should be used to prevent three-sided adhesion.



SURFACE PREPARATION:

Old sealant should be completely removed. Concrete and masonry surfaces must be free of foreign matter and contaminants. Dust and loose particles should be blown out of joints. A clean, dry, sound and uncontaminated surface is mandatory. Stone surfaces must be cohesively sound, dry and free of contaminants. Granite, limestone, marble and sandstone must be pre-tested for adhesion prior to sealant installation. Mill finish aluminum may contain an invisible oil film or oxide. Clean with an appropriate solvent. The use of solvents may be hazardous to your health. Use only in well ventilated areas. KEEP AWAY FROM OPEN FLAME. Read all labeling before use and follow solvent manufacturer's recommendations and instructions for safe handling. Many high-performance coatings or unusual surface treatments may require abrasion of the surface with steel wool or fine emery paper during preparation.

PRIMING:

Certain situations or substrates may require a primer. Ensure compatibility *before* using primers. See primer PDS for details (LXPRIQD13).

a) Priming of masonry or other porous substrate joints is recommended only if the joints will be subjected to prolonged immersion. Joints subjected to intermittent immersion or vertical joints subjected to rain should perform without the need of a primer.
b) It is recommended that all surfaces be pre-tested with Loxon™ NS2 sealant to determine if cleaning will be necessary to remove surface contamination. In the case of some exotic coatings, priming or other surface treatment may be necessary.
c) Loxon™ NS2 sealant is compatible with most coatings and treatments, but due to the vast numbers of, and types of surface coatings available, Sherwin-Williams recommends pre-testing Loxon™ NS2 sealant on the surface in question. Follow manufacturer's recommended recoat times for application of Loxon™ NS2 sealant to primers or treatments. Check primer or treatment for surface contaminants prior to application of sealant.

METHOD OF APPLICATION:

All surfaces must be structurally sound, clean, dry, and fully cured. A field adhesion (pull test) in test joints is recommended, before application. Apply Loxon™ NS2 sealant in a continuous operation, using a professional grade caulking gun and positive pressure adequate to properly fill and seal the joint.

MIXING:

LIMESTONE / ALUMINUM GRAY

- Remove sealant container lid.
- Remove clear plastic film between sealant and activator pouch. **Note:** 3 Gal pail has two activator pouches.
- Transfer entire contents of activator pouch(es) into sealant container and mix using a slow speed drill mixer. Activator must be mixed thoroughly with sealant. Scrape sides of container to ensure complete mixing.
- With a slow speed drill and a sealant mixing paddle, mix for five minutes. Keep the paddle blade below the surface of the sealant to avoid adding air into the sealant.

TINT BASE WITH COLOR PACK

- Follow the four mixing instructions for 'Limestone,' then:
- Mix the entire contents of one Loxon™ color pack can into the sealant container and continue mixing with slow speed drill mixer.
- Use a spatula or knife to remove all the pigment from the color pack can. Continue mixing with a slow speed drill and slotted paddle until color is uniform/consistent.
- When mixing, scrape the sides and bottom of the sealant container several times for a complete mix.

TOOLING:

Loxon™ NS2 sealant should be dry tooled. Tooling techniques using solvents or soapy solutions are not recommended. Tooling of freshly applied sealant is necessary for proper adhesion. Tool the sealant with adequate pressure to spread the sealant against the back-up material and onto the joint surfaces. If joint surfaces have been masked, remove masking tape immediately after tooling.

PAINTING:

Exercise caution if painting. When painting over Loxon™ NS2 sealant with primers, top-coats or treatments, cracking or peeling of these coatings could occur because of joint movement. In general, oil-based paints are not recommended because of their relatively poor elastic properties and because of their potential interaction with the sealant chemistry, which may create non-curing conditions for the painted sealant. Do not paint over Loxon™ NS2 sealant until it has fully cured. Cure is dependent on temperature and humidity and may take 7 or more days. Loxon™ NS2 sealant when applied in a typical 1/2" x 1/4" bead and backed with a suitable bond-breaker at 75°F and 50% RH, will be acceptable for painting with breathable coatings within 48 hours and non-breathable coatings after 72 hours. Warmer, more humid conditions will allow Loxon™ NS2 sealant to cure more quickly and conversely, cooler and/or drier conditions will lengthen the cure time. A small test area is strongly recommended.

CLEANING:

Cured sealant is very difficult to remove. Excess sealant and smears should be dry-wiped from all surfaces while still uncured, followed with a commercial solvent such as xylol, toluol or methyl ethyl ketone. The use of these solvents (or other solvents) may be hazardous to your health.

KEEP AWAY FROM OPEN FLAME. Read all labeling before use, and follow solvent manufacturer's recommendations and instructions for safe handling. Tool and application equipment may also be cleaned with the same solvents. The dried sealant can be removed by cutting with a sharp-edged tool; thin films by abrading.

CAUTIONS

Danger. Combustible liquid. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer. May cause damage to organs through prolonged or repeated exposure. Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from flames and hot surfaces. - No smoking. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Wear eye or face protection. Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection. **Response: IF ON SKIN:** Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. **IF INHALED:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. **IF** exposed or concerned: Get medical attention. Get medical attention if you feel unwell. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a **POISON CENTER** or physician. **Storage:** Keep cool. Store in a well-ventilated place. Store locked up. **Disposal:** Dispose of contents and container in accordance with all local, regional, national and international regulations. Please refer to the SDS for additional information. Do not transfer contents to other containers for storage. **VAPOR AND SPRAY MIST HARMFUL.** Gives off harmful vapor of solvents and isocyanates. **DO NOT USE IF YOU HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS, OR IF YOU HAVE EVER HAD A REACTION TO ISOCYANATES. USE ONLY WITH ADEQUATE VENTILATION. WHERE OVERSPRAY IS PRESENT, A POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR (NIOSH approved) SHOULD BE WORN TO PREVENT EXPOSURE. IF UNAVAILABLE, AN APPROPRIATE PROPERLY FITTED APPROVED NIOSH VAPOR/PARTICULATE RESPIRATOR MAY BE EFFECTIVE.** Follow directions for respirator use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. If you have any breathing problems during use, **LEAVE THE AREA** and get fresh air. If problems remain or happen later, **IMMEDIATELY** call a doctor - If not available get emergency medical treatment. Have this label with you. **WARNING:** This product contains a chemical known to the State of California to cause cancer. **FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.** This product must be mixed with other components before use. Before opening the packages, **READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.** Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 79.8% 26199 (1/15)

SHELF LIFE

Loxon™ NS2 sealant will exhibit a 12 month shelf life from the date of manufacture when stored at room temperature.

STORAGE

Store in unopened containers in a cool, clean, dry area. Do not open containers until ready for use.

Coverage in lineal feet per one gallon				
	Depth (inches)			
Width (inches)		¼"	3/8"	½"
	¼"	308′	--	--
	3/8"	205′	--	--
	½"	154′	--	--
	5/8"	122′	82′	--
	¾"	--	68′	51′
	7/8"	--	58′	44′
	1"	--	51′	38′
	1 ½"	--	--	26′
	2"	--	--	19′
	3"	--	--	12′

When using this reference chart, you MUST consider the physical limitations of the product you are using. Not all products can be used in the gap sizes shown.

Working Time (RH=Relative Humidity)

Standard Conditions	Higher Temperatures	Colder Temperatures
73°F (23° C), 50% RH	95° F (35° C), 5-90% RH	40° F (4° C)
2-3 hours	1-2 hours	4-6 hours

PERFORMANCE TIPS:

- Prevent Loxon™ NS2 from coming into contact with oil-based sealants, uncured silicone sealants, polysulfides, or fillers that contain oil, tar or asphalt.
- Loxon™ NS2 sealant will not adhere to previously applied silcone sealants.
- Protect unopened containers from direct sunlight and heat.
- In cool or cold weather, store container(s) at room temperature for at least 24 hours, before using.
- Loxon™ NS2 can be applied below freezing temperatures only if: substrates are completely dry and free of moisture, and clean.
- Do not apply over freshly treated wood; treated wood must have been weathered for at least six months.
- Do not use in swimming pools or other submerged conditions where the sealant will be exposed to strong oxidizers/chlorine. Avoid submerged conditions where water temperatures will exceed 120˚ F (50˚ C).
- Substrates such as stainless steel, copper, and galvanized steel typically require the use of a primer. Loxon™ Quick Dry primer (LXPRIQD13) is acceptable. Loxon™ Quick Dry primer (LXPRIQD13) can also be used for Kynar 500 based coatings. An adhesion test is recommended for any questionable substrate.
- Loxon™ NS2 should **not** be used in glazing applications. Do **not** apply on glass or plastic glazing panels.
- When Loxon NS2 is used in areas subject to continuous water immersion, cure for two weeks at 70° F (23°C). Allow longer cure times at lower temeratures.

LIMITED WARRANTY

Sherwin-Williams warrants for one year from date of use if used as directed and within product shelf life (as set forth in the current Sherwin-Williams Product Data sheet (the "PDS") for this product) that this product will be free from manufacturing defects and meet the specifications set forth in the product PDS. Sherwin-Williams makes no warranty as to appearance or color. If this product fails to meet the foregoing warranty, as your sole remedy, upon proof of purchase, we will replace the product at no cost or refund the original purchase price. Labor or costs associated with labor not included. This warranty is made to the original purchaser and is not transferable. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY, WHICH ARE ALL DISCLAIMED AND/OR LIMITED IN DURATION TO THE EXTENT PERMITTED BY LAW. WE SHALL NOT BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS) FROM ANY CAUSE WHATSOEVER.