



TECHNICAL DATA SHEET

LOCTITE
PL® S30™ POLYURETHANE
Roof & Flashing Sealant

Henkel Corporation
 Professional and Consumer Adhesives
 Rocky Hills, CT 06067
 Phone 1-800-624-7767
 Fax (440) 250-9661
www.henkel.com www.loctiteproducts.com



DESCRIPTION

Loctite® PL® S30™ Polyurethane Roof & Flashing Sealant is a premium quality, commercial grade sealant developed especially for forming permanent, water and weatherproof seals in all exterior gaps and joints. This sealant is elastic and remains flexible to expand and contract with construction material movement to protect and retain the original seal. It provides properties of non-sag, permanent flexibility and corrosion resistance. It exhibits outstanding durability and tear resistance. It usually requires no primer and resists deterioration from weather, stress or movement. It is UV and ozone resistant and does not soften in the sun.

RECOMMENDED FOR:

Seals roof flashing around chimneys and roof edging. Also suitable for shingle tabbing and for covering roofing nails. Bonds asphalt, aluminum, fiberglass, metal, brick, wood, concrete, stucco and many more substrates.

NOT RECOMMENDED FOR:

- Underwater applications or permanent water immersion
- Applications requiring temperature resistance greater than 200°F (93°C)
- Joint depths greater than 1/2" without the use of a backer rod
- Use with fillers impregnated with oil, asphalt, tar or any migratory saturant
- Contact with oil-based caulking compounds, butyl caulking compounds and silicone sealants (uncured and cured)

FEATURES & BENEFITS:

Feature	Benefits
Flexible.....	Use on expansion joints; ± 35% movement
Weatherproof.....	Withstand harsh environments
Does not deteriorate.....	One-time application
Paintable.....	Blends with surroundings
Low-VOC formula.....	Complies to stringent Federal & State Regulatory Requirements

COVERAGE

For a 10 fl. oz. cartridge:

- A 1/4" (6 mm) bead extrudes approximately 30.6 ft (9.35 m).
- A 3/8" (9.5 mm) bead extrudes approximately 13.6 ft. (4.1 m).

Colour	Item #	Package	Size
Black	1618181	Paper Cartridge	10 fl oz
Black	1618148	Paper Cartridge	10 fl oz
Black	1675273	Paper Cartridge	10 fl oz

DIRECTIONS

Tools Typically Required:

Utility knife, caulking gun and tool to puncture cartridge seal.

Safety Precautions:

Gloves. Sealant may temporarily stain skin.

Surface Preparation:

Surfaces must be structurally sound, dry, clean, free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing, curing and painting and compound.

Joint Preparation:

The number of joints and the joint width should be designed for a maximum of $\pm 35\%$ joint movement from the initial joint width. The depth of the sealant joint should be $\frac{1}{2}$ the width of the joint. The maximum depth is $\frac{1}{2}$ inch (13 mm) and the minimum is $\frac{1}{4}$ " (6 mm). The maximum recommended joint width is 1.5 inches (38 mm).

In deep joints, the sealant depth must be controlled by Closed-Cell Backer-Rod or Soft Backer-Rod. Where the joint depth does not permit the use of backer-rod, a bond breaker (polyethylene strip) must be used to prevent three-sided adhesion.

To maintain the recommended sealant depth, install backer-rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed-Cell Backer-Rod should be approximately $\frac{1}{8}$ " (3 mm) larger in diameter than the width of the joint to allow for compression. Soft Backer-Rod should be approximately 25% larger in diameter than the joint width. Backer-rod becomes an integral part of the joint. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer-rod.

Masonry:

Concrete, stone, stucco and other masonry must be cleaned where necessary by grinding or wire brushing to expose a sound surface free of contamination. Concrete must be fully cured.

Wood and painted wood:

Cut back weathered and treated surfaces and dry rot until clean, sound wood is reached. Loctite® PL® Polyurethane Roof & Flashing Sealant will adhere to most new and old dry, oil-free wood. Scrape away paint to bare wood.

Metal:

Scale, rust and coatings must be removed to expose bright metal. Protective coatings should be removed with a solvent as well as any chemical residue or film.

General Preparation:

Use above 40°F (4°C). In cool or cold weather, store container where temperature is about 75°F (25°C) for at least 24 hours before using. Cut nozzle at a 45° angle to desired bead size and puncture inner seal.

Priming:

While Loctite® PL® Polyurethane Roof & Flashing Sealant is generally considered a non-priming sealant, special circumstances or substrates (Copper, galvanized and stainless steel) may require a primer. It is the user's responsibility to check the adhesion of the cured sealant on a test joint before applying to the entire project. Where incidental water immersion may occur, priming is required.

Apply primer full strength with a brush or clean cloth. A light, uniform coating is sufficient for most surfaces. Porous surfaces, may require more primer, but do not over apply. Allow primer to dry prior to sealant application. Depending on temperature and humidity, the primer will be tack free in 15 to 120 minutes and ready for sealant. Priming and sealing must be done on the same working day.

Application:

Henkel Loctite PL S30 comes ready to use. Apply by professional caulking gun. Do not open product container until preparatory work has been completed. Protect open containers from heat and /or direct sunlight.

Fill joints from the deepest point to the surface by holding a properly sized nozzle against the back of the joint. Do not use in joints deeper than $\frac{1}{2}$ " (13 mm) without the use of a backer rod. For roof tile applications, apply a bead of Henkel Loctite PL S30 sufficient to make a bond between two tiles on the upper surface of the down slope tile. Install the upslope tile and press into the sealant bead to ensure good contact between the sealant and both tiles.

Dry tooling is recommended within 5 minutes of extrusion. DO NOT use soapy water when tooling as this may cause the surface to discolor. If tooling with solvent is necessary, use clean mineral spirits. Tooling results in the correct bead shape, a neat joint, and maximum adhesion. Sealant skins within 24 hours, is functional within 3 days and reaches full cure in about 1 week.

Clean-up:

Clean tools and any uncured sealant residue immediately with mineral spirits. Cured sealant may be carefully cut away with a sharp-edged tool.

STORAGE AND DISPOSAL

NOT DAMAGED BY FREEZING. Store in original, tightly closed container away from heat and direct sunshine. Elevated temperatures will reduce shelf life. In cool or cold weather, store container at room temperature for at least 24 hours before using. Use an approved hazardous waste facility for disposal.

LABEL PRECAUTIONS

WARNING! MAY BE HARMFUL IF INHALED. EYE, SKIN AND RESPIRATORY IRRITANT. MAY CAUSE SKIN AND RESPIRATORY SENSITIZATION.

WARNING: Contains mineral sprits and toluene diisocyanate (TDI). Individuals with lung or breathing problems or prior sensitization to isocyanates should not use this product. Avoid breathing vapors. Vapors may cause headaches, dizziness and nausea. Open windows and doors to ensure cross ventilation during application and until all odors are gone. Avoid contact with eyes and skin. Prolonged or repeated exposure may cause dermal or respiratory sensitization, effects may be permanent. Gloves recommended. **FIRST AID:** If swallowed, call a physician or Poison Control Center immediately. Do not induce vomiting. For eye contact flush with water for 15 minutes, call a physician. For skin contact, wash thoroughly with soap and water. If inhaled, move to fresh air. If symptoms persist, get immediate medical attention. **INTENTIONAL MISUSE BY DELIBERATELY INHALING CONTENTS MAY BE HARMFUL OR FATAL. DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Refer to the Material Safety Data Sheet (MSDS) for further information

DISCLAIMER

The information and recommendations contained herein are based on our research and are believed to be accurate, but no warranty, express or implied, is made or should be inferred. Purchasers should test the products to determine acceptable quality and suitability for their own intended use. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<u>Color:</u>	Black	<u>Application Temperature:</u>	Apply and cure between 20°F (-6°C) and 120°F (49°C)
<u>Appearance:</u>	Non-slumping paste	<u>Tack-Free Time:</u> (ASTM C 679)	24 hours @ 75°F (24°C) and 50% Relative Humidity
<u>Base:</u>	Polyurethane	<u>Full Cure Time:</u>	7 days @ 75°F (24°C) and 50% Relative Humidity Cure time is dependent upon temperature, humidity, porosity of substrate and joint depth.
<u>Odor:</u>	Slight	<u>Rheology, Vertical Sag:</u> (24 hours):	No sag
<u>Flash Point:</u>	192.2°F (89°C)		
<u>Specific Gravity:</u>	1.20		
<u>VOC Content:</u>	35 g/L (< 3% by weight)		
<u>Shelf Life:</u>	12 months from date of manufacture (unopened)		
<u>Lot Code Explanation:</u>	XX1AUG018		
(Lot code stamped on bottom plunger of cartridge)	XX = Process ID denoting mixers or packaging lines 1 = Sequential number of batches AUG = Month 01 = Day 3 = Year For example: August 1, 2013		

Typical Cured Performance Properties

<u>Colour:</u>	Black
<u>Cured Form:</u>	Non-flammable, rubbery solid
<u>Service Temperature:</u>	-40°F (-40°C) to 180°F (82°C)
<u>Shrinkage:</u>	None
<u>Water Resistance:</u>	Yes
<u>Paintable:</u>	Yes, once fully cured (at least 7 days).
<u>Movement Capability:</u> (ASTM C 719)	± 35%
<u>Tensile Strength:</u> (ASTM D 412)	380-450 psi (2.6-3.1 MPa)
<u>Tear Strength:</u> (ASTM D 1004)	60-70 pli
<u>Hardness, Shore A:</u> (ASTM C 661)	28-32
<u>Ultimate Elongation at Break:</u> (ASTM D412)	900-1000%
<u>Adhesion in Peel:</u> (Concrete to Aluminum)	27-36 pli
<u>Extrudability:</u> 3 seconds (ASTM C 603)	Passes
<u>Weight Loss:</u> After heat aging (ASTM C 792)	2-3%
<u>Cracking and Chalking:</u> After heat aging (ASTM C 792)	None
<u>Stain and Color Change:</u> (ASTM C 510)	Passes (no visible stain)
<u>Tack-free Time:</u> Max 72 hours (ASTM C 679)	Passes
<u>Adhesion in Peel After UV Radiation Through Glass:</u> Min 5 pli (ASTM C 794)	Passes
<u>Artificial Weathering:</u> Xenon Arc, 250 hours (ASTM C 793)	Passes
<u>Artificial Weathering:</u> Xenon Arc, 3000 hours (ASTM G 26)	No surface cracking
<u>Water Immersion:</u> 122°F (50°C) (ASTM C 1247)	Passes 10 weeks with movement cycling
<u>Specifications:</u>	<ul style="list-style-type: none">▪ ASTM C 920, Type S, Grade NS, Class 25, Use NT, M, and A▪ Federal Specification TT-S-00230C, Type II, Class A▪ Meets CAN/CGSB-19.13-M87, Classification MCG-2-25-A-N, No. 81026