



## PL<sup>®</sup> S40<sup>™</sup> Polyurethane Window, Door & Siding Sealant

**Description:** Loctite PL<sup>®</sup> S40<sup>™</sup> Polyurethane Window, Door and Siding Sealant is a premium quality commercial grade sealant developed especially for forming permanent, water and weather resistant seals in most exterior gaps and joints. This sealant exhibits outstanding durability, tear resistance and a movement capability of  $\pm 35\%$  which accommodates construction material movement to protect the original seal. PL S40 Polyurethane Window, Door and Siding Sealant is UV and ozone resistant, and does not soften in the sun. It is also CARB (California Air Resources Board) compliant.

**Available As:**

Item #	Size	Package	Color
1618180	10 fl oz (295 ml)	Paper Cartridge	White
1618182	10 fl oz (295 ml)	Paper Cartridge	White
1675293	10 fl oz (295 ml)	Paper Cartridge	White
1618175	10 fl oz (295 ml)	Paper Cartridge	Bronze
1618176	10 fl oz (295 ml)	Paper Cartridge	Gray
1618516	10 fl oz (295 ml)	Paper Cartridge	Redwood Tan

**Features & Benefits:**

- Flexible & Tear-Resistant
- Weatherproof
- Paintable
- Low VOC

**Recommended For:**

Loctite PL S40 Polyurethane Window, Door & Siding Sealant seals all door, window and garage framing, fascia and sill plates. Excellent for sealing siding of all types. Bonds wood, vinyl, aluminum, concrete, brick, fiberglass, metal, stucco, and many other surfaces

**Not Recommended For:**

- Underwater applications or permanent water immersion
- Applications requiring temperature resistance greater than 180°F (82°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)

**Coverage:**

For a 10 fl. oz. (295 ml) cartridge:

- A 1/4" (6 mm) bead extrudes approximately 30.9 ft. (9.4 m)
- A 3/8" (9.5 mm) bead extrudes approximately 13.8 ft. (4.2 m)



# TECHNICAL DATA SHEET

## Typical Uncured Physical Properties:

Color:	White, Bronze, Gray, Redwood Tan	
Appearance:	Thick liquid	
Base:	Polyurethane	
Odor:	Mild	
Density:	10.1 lb/ US gallon	
Flash Point:	Non-Flammable	ASTM D3278, closed cup
VOC Content:	3% by weight	CARB
	35 g/l	SCAQMD rule 1168
Shelf Life:	12 months from date of manufacture (unopened)	Stored at standard conditions
Lot Code Explanation:	<b>XX1AUG015</b>	
Stamped on bottom plunger of cartridge	XX = Process ID denoting mixers or packaging lines 1 = Sequential number of batches	
	<b>AUG</b> = Month <b>01</b> = Day <b>5</b> = Last digit of year	
	Example: AUG015 = August 1, 2015 is date of manufacture	

## Typical Application Properties:

Application Temperature:	Apply between 40°F (4°C) and 100°F (38°C) For best results, apply between 60°F (16°C) and 100°F (38°C)	
Skin Time:	Overnight or within 24 hours*	At 75°F, 50% relative humidity, and a ½" width by ¼" depth joint
Cure Time:	1 week*	At 75°F, 50% relative humidity, and a ½" width by ¼" depth joint
	*Time is dependent on temperature, humidity, porosity of substrate and depth of sealant applied	
Sag:	No Sag	ASTM C639, 120°F (49°C)

## Typical Cured Performance Properties:

Color:	White, Bronze, Gray, Redwood Tan	
Appearance:	Non-flammable, rubbery solid	
Service Temperature:	-40°F to 180°F (-40°C to 82°C)	
Water Resistant:	Yes	
Paintable:	Yes, once fully cured (7 days)	
Shrinkage:	Nil	
Hardness:		ASTM D661, Shore A
	At standard conditions: 25-30	
	After heat aging: 25	
Movement Capability:	± 35%	ASTM C719
Tensile Strength:	350 psi	ASTM D412
Ultimate Elongation at Break:	800%	ASTM D412
Tear strength:	50 pli	ASTM D1004
Adhesion in Peel:	30 pli	ASTM C794
Weight Loss, after heat aging:	3%	ASTM C792
Tack-Free Time:	Passes	ASTM C679
Stain & Color Change:	No visible change	ASTM C510
Artificial Weathering:	No surface cracking	ASTM G26, Xenon arc, 3000 hrs



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Water Immersion:	Passes 10 weeks with movement cycling	ASTM C1247, 122°F (50°C)
Specifications:	<ul style="list-style-type: none"> <li>• ASTM C920, Type S, Grade NS, Class 35, Use NT, M, A, T and I</li> <li>• Federal Specification TTS-00230C, Type II, Class A</li> <li>• Meets CAN/CGSB-19.13-M87, Classification MCG-2-25-A-N, No. 81026</li> </ul>	

## 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).

Joint Width (inches)	Sealant Depth @ Midpoint (inches)
1/4 - 1/2	1/4
1/2 - 3/4	1/4 - 3/8
3/4 - 1	3/8 - 1/2
1 - 1.5	1/2

Joint Width (mm)	Sealant Depth @ Midpoint (mm)
6 - 13	6
13 - 19	6 - 10
19 - 25	10 - 13
25 - 38	13

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 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. PL S40 will adhere to most new and old dry, oil-free wood. Scrape away paint to bare wood. Any coatings on wood must be tested to verify adhesion of sealant.

### 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. Any coatings on metal must be tested to verify adhesion of sealant.

### 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 PL S40 Polyurethane Window, Door & Siding 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 an appropriate primer full strength with a brush or clean cloth following instructions. 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. Priming and sealing must be done on the same working day.

### Application:

Henkel Loctite PL S40 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.



# TECHNICAL DATA SHEET

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 ½" (13 mm) without the use of a backer rod.

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.

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**Storage & Disposal:**

NOT DAMAGED BY FREEZING. Store in unopened containers in a cool, dry area away from heat and direct sunshine under standard conditions. Standard storage conditions are defined as 72 ± 4°F (22 ± 2°C) and <50% relative humidity. 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

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**Label Precautions:**

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

**WARNING:** Contains mineral spirits 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 Safety Data Sheet (SDS) for further information.**

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**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.



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