

Revision: May 22, 2010 Supersedes: May 14, 2009 Ref. #: 257831/3/5

# **TECHNICAL DATA SHEET**



PL® POLYURETHANE Window, Door & Siding Sealant

### **Henkel Corporation**

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# DESCRIPTION

Loctite® PL® 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  $\pm$  25% which accommodates construction material movement to protect the original seal. Loctite® PL® 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.

## **RECOMMENDED FOR:**

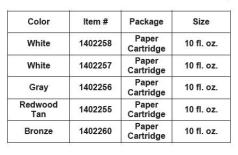
Seals all door, window and garage framing, fascia and sill plates. Excellent for sealing siding of all types. Bonds wood, vinyl, aluminum, concrete, brick, fiberglass, metal, stucco, and many other surfaces

# NOT RECOMMENDED FOR:

- Underwater applications or permanent water immersion
- Applications requiring temperature resistance greater than 200°F (93°C)
- Joint depths greater than ½" 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; ± 25% movement                       |  |  |
| Weatherproof         | Withstands harsh environments                                 |  |  |
| Does not deteriorate | One-time application  |  |  |
| Paintable            | Blends with surroundings                                      |  |  |
| Low-VOC formula      | Complies to stringent Federal & State Regulatory Requirements |  |  |



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## **COVERAGE**

#### For a 10 fl. oz. cartridge:

A  $\frac{1}{2}$ " (6 mm) bead extrudes approximately 30.6 ft (9.35 m). A  $\frac{3}{8}$ " (9.5 mm) bead extrudes approximately 13.6 ft. (4.1 m).

# **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.

#### 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 Window, Door & Siding 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. For example aluminum window frames are often coated with a clear lacquer that must be removed before the application of Loctite® PL® Polyurethane Window, Door & Siding 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® Polyurethane Window, Door & Siding Sealant is generally considered a non-priming sealant, special circumstances or substrates (kynar, 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 30 minutes and ready for sealant. Priming and sealing must be done on the same working day.

#### Application:

Apply sealant with a steady pressure, forcing into the joint. Dry tooling is recommended within 5 minutes of extrusion. Do not use soapy water as this may cause the surface to discolor. If tooling with solvent is necessary, use clean mineral spirits. Protect open containers from heat and /or direct sunlight. Do not use in joints deeper than ½" (13 mm) without the use of a backer rod. The depth of the sealant should be half the width of the joint. The maximum depth is ½" (31 mm) and the minimum is ¼" (6 mm). 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!** Combustible liquid and vapor. Contains mineral spirits, calcium oxide, talc, calcium carbonate, toluene diisocyanate. KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. May cause skin, eye and respiratory irritation. May cause dermatitis and allergic responses. Avoid contact with skin, eyes and clothing. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation. Avoid breathing vapor. Use only with adequate ventilation. **KEEP OUT OF REACH OF CHILDREN** 

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

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# **TECHNICAL DATA**

| Typical Un  | cured Physical Properties   | Турі                                   | cal Application Properties   |
|---|---|--|--|
| Colour:   | Bronze, Gray, Redwood Tan and<br>White  |  | Apply and cure between 20°F (-6°C) and 120°F (49°C)  |
| Appearance:   | Non-slumping paste  | <u>Tack-Free Time:</u><br>(ASTM C 679) | 24 hours @ 75°F (24°C) and 50% Relative<br>Humidity  |
| Base:   | Polyurethane  |  | ,  |
| Odour:  | Mild  | Full Cure Time:                        | 7 days @ 75°F (24°C) and 50% Relative Humidity Cure time is dependent upon temperature, humidiporosity of substrate and joint depth. |
| <u>Viscosity:</u>                                       | 16,000 poise  | <b>-</b>                               |  |
| Flash Point:  | > 200°F (93°C)  | Rheology, Vertical Sag: (24 hours):    | < 0.25"  |
| Specific Gravity:                                       | 1.21  |  |  |
| Solids Content:   | 97.02%  |  |  |
| VOC Content:  | < 43 g/L (< 4% by weight)   |  |  |
| Shelf Life:   | 12 months from date of manufacture (unopened)   |  |  |
| Lot Code Explanation:                                   | XX1AUG018   |  |  |
| (Lot code stamped on<br>bottom plunger of<br>cartridge) | XX = Process ID denoting mixers or<br>packaging lines<br>1 = Sequential number of batches |  |  |
| g-,   | AUG = Month<br>01 = Day<br>8 = Year<br>For example: August 1, 2008                        |  |  |

# **Typical Cured Performance Properties**

Colour: Bronze, Gray, Redwood Tan and White

<u>Cured Form:</u> Non-flammable, rubbery solid

Service Temperature: -40°F (-40°C) to 180°F (82°C)

Shrinkage: None
Water Resistance: Yes

<u>Paintable:</u> Yes, once fully cured (at least 7 days).

Specifications: 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

Corps of Engineers CRD-C-541, Type II, Class A

USDA compliant for use in Meat and Poultry areas

Movement Capability:

(ASTM C 719)

± 25%

Tensile Strength (ASTM D 412):

 $350 \pm 50 \text{ psi}$ 

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50 ± 10 pli

Tear Strength (ASTM D 1004):

Hardness, Shore A (ASTM C 661):  $27.5 \pm 2.5$ 

800% ± 50%

Ultimate Elongation at Break (ASTM D412):

Adhesion in Peel: (Concrete to Aluminum) 30 ± 5 pli