



# PL® 400® Subfloor Construction Adhesive

**Description:** Loctite® PL® 400® Subfloor Construction Adhesive provides a powerful, permanent bond and is formulated for all heavy duty interior or exterior subfloor construction. Cold weather formula for easier extrusion and excellent adhesion in all weather conditions. Bonds dry, wet, frozen and treated lumber to most building materials. Offers fast set and superior strength and development. Low VOC formulation meets stringent State and Federal VOC regulations.

## Available As:

| Item #             | Size              | Package         |
|--------------------|-------------------|-----------------|
| 1652275            | 10 fl oz (295 ml) | Paper Cartridge |
| 1602142<br>1652275 | 28 fl oz (828 ml) | Paper Cartridge |

# Features & Benefits:

- All Weather Application: 1.4°F to 120°F
- Cold Weather Gunnable: No "Roll-Up" on Frozen Lumber
- · Adhesive Holds Bead Shape, No Splattering
- Gap-Filling Capabilities
- High Grab Reduces the Use of Fasteners
- Meets and exceeds APA AFG-01 specs

# **Recommended For:**

Loctite PL 400 can be used in most interior and exterior construction projects either on the job or the production line. It bonds all wood to wood assemblies dry, wet or frozen. Primarily designed for on-site bonding of subfloor and plywood decking to joists during cold weather. PL 400 is suitable for use in drywall, plaster, metal, masonry, concrete, wood, brick, ceramic tile, slate, treated lumber and most other projects requiring an adhesive. Ideal for use in prefab or modular construction.

# For Best Results:

Not recommended for the following applications:

- Polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE) and acrylic
- Unlined expanded or extruded polystyrene plastic foams or tub surrounds
- Permanent water immersion
- Applications requiring temperature resistance greater than 150°F or below -20°F

# Coverage:

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

- A 1/4" (6 mm) bead extrudes approximately 30.6 ft. (9.3 m)
- A 3/8" (9.5 mm) bead extrudes approximately 13.6 ft. (4.1 m)

For a 28 fl. oz. (828 mL) cartridge:

- A 1/4" (6 mm) bead extrudes approximately 86 ft. (26 m)
- A 3/8" (9.5 mm) bead extrudes approximately 38 ft. (12 m)



**Typical Uncured Physical Properties:**  Color: Light Tan Thick paste Appearance:

Base: Synthetic Rubber and resins

Formaldehyde free

Solvent: Acetone

Odor: Acetone-like

Specific Gravity: 1.44

Flashpoint: 1.4°F (-17°C)

Viscosity: 210,000 cps

**VOC Content: CARB** 0.22% by weight

> SCAQMD rule 1168 5.67 g/l

Shelf Life: 18 months from date of manufacture (unopened)

Lot Code Explanation: **YYDDD** 

Stamped on bottom plunger of

cartridge for 295 ml

YY= Last two digits of year of manufacture

DDD= Day of manufacture based on 365 days in a year

Stamped on plastic nozzle for

825 ml

Cure Time:

Example:  $14061 = 61^{st}$  day of 2014 = March 2, 2014

**Typical Application Properties:** 

Apply and cure between 1.4°F (-17°C) and 120°F (49°C) Application Temperature:

For best results, use at 70°F (21°C)

Open Time: 15 minutes\* @ 78°F (25°C) and 50% R.H. 30 minutes\*

Repositioning Time: @ 78°F (25°C) and 50% R.H. 2 to 7 days\* @ 78°F (25°C) and 50% R.H.

\*Time is dependent on temperature, humidity, porosity of substrate and amount of adhesive

applied

**Typical Cured Performance Properties:**  Color: Light Tan

Cured Form: Non-flammable solid

-20°F (-29°C) to 150°F (66°C) Service Temperature:

Water Resistant:

Compression Shear Strength: ASTM D3498

Wet Lumber: 295 psi (2.03 N/mm²) Frozen Lumber: 165 psi (1.14 N/mm²) Dry Lumber: 246 psi (1.70 N/mm²) Gap-Filling: 248 psi (1.71 N/mm²)

Specifications: Meets and exceeds the following specifications:

**ASTM D3498** 

APA AFG-01

Meets the performance requirements of HUD UM 60A



## **Directions:**

## **Tools Typically Required:**

Utility knife, caulking gun and a long, thin tool to puncture cartridge seal

# **Safety Precautions:**

Interior applications require ventilation to the outside during application and cure. Wear gloves. Wash hands after use.

#### Preparation:

The temperature of the adhesive, the surfaces and the working area must be between 1.4°F (-17°C) and 120°F (49°C). For smooth, fast, easy application during cold weather, store adhesive at room temperature (70° ± 5°F) 24 hours prior to use. Ensure surfaces to be bonded are clean, dry, structurally sound and free of dust, grease, oil or other contaminants. To increase adhesion, sand glossy surfaces to a dull finish. Pre-fit all materials prior to applying product. Cut off tip of cartridge at 45° angle to desired bead size. For exterior applications, the recommended bead size is 3/8" (9.5 mm). Puncture seal inside of nozzle.

#### Application:

Using a caulking gun, apply adhesive in a continuous bead to joists, studs or back side of siding or panels, whichever is appropriate. Ensure that all outer edges and centers are adequately supplied with adhesive to ensure a complete and total bond. Use nails sparingly for support and as an aid to alignment during installation. Join surfaces within 15 minutes. Once joined, repositioning time is approximately 30 minutes. If work is delayed, remove excess adhesive and begin again. After use, wipe off nozzle tip and recap immediately.

# Subfloor and Decking:

Apply continuous beads (1/4" to 3/8"), of adhesive to all floor joists. For tongue and groove panels, apply 1/4" beads to groove avoiding excess "squeeze out". Position panels allowing 3.2 mm (1/8") gap for expansion at butt joints and nail within 10 minutes after adhesive application. Use proper nailing method as designated by APA Adhesive Nail-On Schedule.

## Clean-up:

Clean tools and uncured adhesive residue immediately with mineral spirits or paint thinner in a well-ventilated area to the outdoors. Cured adhesive may be carefully cut away with a sharp-edged tool.

## Storage & Disposal:

Not damaged by freezing. Store away from heat, flame and spark in a cool, well-ventilated area. For best results, store at 70°F (21°C). Use an approved hazardous waste facility for disposal. Hardened material may be disposed of with trash.

# **Label Precautions:**

# DANGER! EXTREMELY FLAMMABLE. VAPORS MAY CAUSE FLASH FIRE. HARMFUL IF INHALED OR SWALLOWED.

**DANGER!** Contains acetone and methyl acetate. **EXTREMELY FLAMMABLE.** Vapors may ignite explosively. Do not use or store near heat, sparks or open flame. Do not smoke when using this product. Extinguish all flames and pilot lights and turn off all sources of ignition, including stoves, heaters and electric motors during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation. Use in a well ventilated area. Avoid breathing vapors. Avoid contact with eyes and skin. Prolonged or repeated exposure may affect the nervous system causing dizziness, headache or nausea. If you experience eye watering, headache or dizziness, leave the area to obtain fresh air. Do not take internally. **FIRST AID:** If swallowed do not induce vomiting, call a physician or Poison Control center immediately. For eye contact flush with water for 15 minutes, call a physician. For skin contact, wash thoroughly with soap and water. If overcome by vapors, get fresh air. **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 Safety Data Sheet (SDS) 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.





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