



# TECHNICAL DATA SHEET



## PL<sup>®</sup> 400<sup>®</sup>

### Subfloor & Deck Adhesive

**Description:** LePage PL 400 is an interior and exterior heavy-duty premium quality adhesive, designed for structural projects that require strength and durability. Ideal for installing sub-floors, exterior sheathing, siding and decking. It may be used under a variety of moisture and temperature conditions ranging from sub-freezing to elevated temperatures, dry or wet framing, and framing with frozen surfaces. It provides excellent flexibility to compensate for the different expansion rates of dissimilar materials and is particularly effective when bonding irregular surfaces or bridging gaps between surfaces which helps eliminate floor squeaks. PL 400 forms a bond that cures stronger than the wood itself, bridges gaps and compensates for wood shrinkage. It's low VOC and toluene-free formula meets LEED<sup>®</sup> standards.

**Available As:**

Item #	Size	Package
1654126	295 ml	Paper Cartridge
1601357	825 ml	Paper Cartridge

**Features & Benefits:**

- All Weather Application: -17°C to 49°C
- 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

**Recommended For:**

LePage 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, 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 polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE) and acrylic
- Not recommended for unlined expanded or extruded polystyrene plastic foams
- Not suitable for permanent water immersion
- Not suitable for applications requiring temperature resistance greater than 66°C or below -20°C

**Coverage:**

For a 295 ml cartridge:

- A 6 mm (1/4") bead extrudes approximately 9.3 m (31 ft)
- A 9.5 mm (3/8") bead extrudes approximately 4.1 m (13.6 ft)

For 825 ml cartridge:

- A 6 mm (1/4") bead extrudes approximately 26 m (86 ft.)
- A 9.5 mm (3/8") bead extrudes approximately 11.6 m (38 ft.)



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## Typical Uncured Physical Properties:

Color:	Beige	
Appearance:	Thick paste	
Base:	Synthetic Rubber and resins Formaldehyde free	
Solvent:	Acetone	
Odor:	Acetone-like	
Specific Gravity:	1.44	
Flash Point:	-17°C (1.4°F)	
Viscosity:	210,000 cps	
VOC Content:	0.22% by weight 5.67 g/l	CARB SCAQMD rule 1168
Shelf Life:	18 months from date of manufacture (unopened)	
Lot Code Explanation:	<b>YYDDD</b>	
Stamped on bottom plunger of cartridge for 295 ml	<b>YY=</b> Last two digits of year of manufacture <b>DDD=</b> Day of manufacture based on 365 days in a year	
Stamped on plastic nozzle for 825 ml	Example: 14061 = 61 <sup>st</sup> day of 2014 = March 2, 2014	

## Typical Application Properties:

Application Temperature:	-17°C (1.4°F) to 49°C (120°F)	
Open Time:	15 minutes*	@ 25°C (78°F) and 50% R.H.
Repositioning Time:	30 minutes*	@ 25°C (78°F) and 50% R.H.
Cure Time:	2 to 7 days*	@ 25°C (78°F) and 50% R.H.

\*Times are dependent on temperature, humidity, porosity of surface bonded and amount of adhesive used

## Typical Cured Performance Properties:

Color:	Beige
Cured Form:	Non-flammable solid
Service Temperature:	-29°C (-20°F) to 66°C (150°F)
Water Resistant:	Yes
Compression Shear Strength:	ASTM D3498
Wet Lumber:	2.03 N/mm <sup>2</sup> (295 psi)
Frozen Lumber:	1.14 N/mm <sup>2</sup> (165 psi)
Dry Lumber:	1.70 N/mm <sup>2</sup> (246 psi)
Gap-Filling:	1.71 N/mm <sup>2</sup> (248 psi)
Specifications:	Meets and exceeds the following specifications: <ul style="list-style-type: none"><li>• ASTM D3498</li><li>• APA AFG-01</li></ul>

## 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 -17°C (1.4°F) and 49°C (120°F). For smooth, fast, easy application during cold weather, store adhesive at room temperature (21°C) 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 9.5 mm (3/8"). 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



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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, 6 mm to 9.5 mm (1/4" to 3/8"), of adhesive to all floor joists. For tongue and groove panels, apply 6 mm (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.

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**Storage & Disposal:**

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

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**Label Precautions:**

**DANGER. POISON. FLAMMABLE. FUMES MAY BE HARMFUL. CONTENTS MAY CATCH FIRE.** Do not get in eyes or on skin or clothing. Do not smoke. Do not breathe fumes. Do not swallow. Use only in a well ventilated area. Keep away from flames, such as a pilot light, and any object that sparks, such as an electric motor. Wear chemical resistant gloves. **KEEP OUT OF REACH OF CHILDREN.**

**FIRST AID TREATMENT:** Contains acetone and methyl acetate. If swallowed, call a Poison Control Centre or doctor immediately. If in eyes or on skin, rinse well with water. If breathed in, move person into fresh air.

**Refer to Material Safety Data Sheet (MSDS) 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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Henkel Canada Corporation - Professional & Consumer Adhesives Headquarters – Mississauga, ON L5N 6C3  
[www.henkelna.com](http://www.henkelna.com)

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