

Revision: 09/01/2024 Supersedes: 02/03/2021

Ref. #: 601344



# PL PREMIUM MAX Construction Adhesive

# **DESCRIPTION**

LePage® PL PREMIUM MAX is the strongest, most durable construction adhesive that remains 100% solid\* after curing. Thanks to the unique high solid content adhesive technology, this product is ideal for most interior or exterior projects where long-term strength and durability are a must. It can be applied to dry or damp surfaces and in both cold (down to -12°C) and hot (49°C) temperatures. This adhesive is great for framing, flooring, stairs, railings, most landscaping and deck projects, and other construction or remodeling projects.

\*In typical conditions based on ASTM D3498 for dry lumber and gap filling effect on strength

#### Available as:

Item #	Package	Size
2292244	Plastic Cartridge	266 mL (9 fl. oz.)

# **FEATURES & BENEFITS**

- · Strongest bond to most materials
- Remains solid and doesn't develop air pockets
- Fast grab and repositionable
- · Easy to gun in cold weather
- No run-on
- For indoor and outdoor use
- Weatherproof
- Full cure in 24-48 hours

# **RECOMMENDED FOR**

LePage PL PREMIUM MAX bonds to most common construction materials such as wood, plywood, OSB, MDF, hardwood flooring, concrete, stone<sup>†</sup>, granite, marble, tile, slate, masonry, brick, foamboard insulation including EPS (expanded polystyrene foam), XPS (extruded polystyrene foam), porcelain, metal, stainless steel, galvanized metal, ceramic, fiberglass, drywall, rigid and cellular vinyl/PVC trim and molding.

# **LIMITATIONS**

- Marine Applications
- Water submersion applications
- Polyethylene, polypropylene, polytetrafluoroethylene (PTFE), and flexible vinyl (FPVC)
- Polyethylene (PE) films that cover certain XPS or EPS foam insulation boards
- Bitumen coated surfaces
- Certain natural stones such as limestone, travertine, sandstone will have bonding difficulties
- Certain materials such as rubbers and plastics may have bonding difficulties, test before use
- Flexible sheet goods
- Areas of high heat such as around fireplace openings or for fire pit construction
- All treated lumber must be well seasoned for at least 6 months in weather exposure

# **COVERAGE**

# For a 266 mL cartridge:

- A 6 mm (¼") bead extrudes approximately 8.5 m (28.0 ft)
- A 9.5 mm (3/8") bead extrudes approximately 3.7 m (12.3 ft)



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**TECHNICAL DATA** 

Typical Uncured Physical Properties		Typical Application Properties		
Colour: Appearance:	Grey Thixotropic liquid		Application Temperature:	Apply and cure above -12°C (10°F) and below 49°C (120°F)
Base:	Silane Modified Po	olymer	Odor:	Alcohol
Flash Point:	107°C (224.6°F)		Open Time:	20 minutes*
Specific Gravity:	1.6 – 1.7		Reposition Time:	15 minutes*
Viscosity:	1,200,000 cps		Clamping Time:	24 hours
VOC Content:	64 g/l CARB 4 % by weight SCAQMD rule	CARB SCAQMD rule	Cure Time**:	24-48 hours* at 25°C (78°F) and 50% RH
, ,	1168	Clean Up:	Clean up uncured adhesive residue with mineral spirits. Scrape away cured adhesive using a sharp-edged tool.	
Shelf Life:	Shelf Life: 18 months from the date of	Lot Code Explanation: YYDDD		
manufacture (unopened)		YY = Last two digits of the year of manufacture DDD = Day of manufacture based on 365 days per year Example: 23038 = February 7, 2023 is the date of manufacture		

<sup>\*</sup> Time is dependent upon temperature, humidity, porosity of substrate, and amount of adhesive used

<sup>\*\*</sup>Cure time is significantly increased in cold temperatures and/or high humidity conditions

Typical Cured Performance Properties						
Colour:	Grey	Service Temperature:	-18°C (0°F) to 71°C (160°F)			
Cured form:	Non-flammable, hard solid	Paintable:	Yes, when fully cured with latex paint only			
Water Resistance:	Yes	Sandable:	Yes			
Compression Shear Strength, ASTM D3498:		Applicable Specification	ons:			
Douglas Fir to Douglas Fir plywood		• ASTM D 3498				
Dry lumber bonding	8.79 N/mm <sup>2</sup> (1275 psi)	• APA AFG-01				
Wet lumber bonding	4.94 N/mm² (717 psi)	• ASTM C 557				
Frozen lumber bonding	6.23 N/mm <sup>2</sup> (904 psi)					
Gap Filling	4.35 N/mm <sup>2</sup> (631 psi)					
Moisture resistance	7.7 N/mm <sup>2</sup> (1117 psi)					

# **DIRECTIONS**

# **Tools Typically Required**

Utility knife, caulking gun, tool to puncture inside seal of cartridge, plant mister bottle containing water

#### **Safety Precautions:**

Wear gloves to avoid skin contact and wash hands after use

#### Preparation:

Use above -12°C (10°F). For easier application, ensure the product temperature is 15°C (60°F) or higher but below 32°C (90°F). Ensure surfaces to be bonded are structurally sound, clean, and free of frost, standing water, grease, oil, dust, release agents, and other contaminants which may interfere with bond formation. Pre-fit all materials and protect finished surfaces before applying adhesive. Place the adhesive cartridge in a caulking gun and cut nozzle at a 45° angle to required opening, at least 6 mm (¼") or wider and puncture the inner seal of the cartridge. The foil seal must be completely opened using a tool of comparable size to the opening. Be very careful not to allow PL PREMIUM MAX to cure on finished surfaces.



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Ref. #: 601344

# **DIRECTIONS**

## **General Application Guidelines:**

Apply adhesive to one surface of the materials being bonded and press the surfaces firmly together within 20 minutes. Materials may be repositioned within 15 minutes after applying adhesive. If bonding two non-porous surfaces (such as foam, metal, fiberglass, etc.) or under very dry conditions (less than 30% relative humidity), add water in the form of a very light or atomized spray from a plant mister bottle to the extruded adhesive. The repositioning time will then be reduced to less than 10 minutes. Use mechanical support or temporary bracing for 24-48 hours depending upon project requirements while the adhesive cures. Cure time is dependent upon temperature, humidity, porosity of substrate and amount of adhesive used. Low temperatures and humidity will increase cure time. When bonding EPS and XPS foam insulation, avoid cure and surface temperatures above 32°C (90°F).

#### Bonding Drywall, Vinyl Board, or Paneling to wall surfaces:

When bonding to relatively smooth and level surfaces apply adhesive as a series of vertical beads 25 cm (10") apart; perimeter gluing is not recommended. Start the beads approximately 25 mm (1") from the panel edge applying 6 mm (¼") to 9 mm (¾") round beads of adhesive. Immediately after applying the adhesive place the drywall/board/panel against the substrate and press firmly into place to flatten out the adhesive. Be careful not to over press. Mechanical fasteners or temporary bracing must be used and kept in place until the adhesive is fully cured, depending upon the project requirements. Cure time will vary depending on the porosity of the materials used, humidity, and temperature at time of application.

When bonding drywall or paneling to wood/metal stud framing, apply 6 mm (¾") to 9 mm (¾") round beads of adhesive to each stud starting 8 cm (3") from top and ending 8 cm (3") from bottom. All drywall applications require perimeter nailing/screws 41 cm (16") O.C. and 61 cm (24") O.C. in the field following the Adhesive Nail-On Attachment Method for gypsum wallboard. Temporary support or bracing is required for prefinished panels until adhesive is fully cured. Mechanical fasteners may be required at the top and bottom of each prefinished panel.

# Drywall application over foam insulation:

Apply not less than 6 mm ( $\frac{1}{2}$ ") round beads of adhesive as outlined above. Position drywall, align, and press firmly into place. Perimeter fasten to underlying studs or strapping around entire perimeter. It is recommended to brace the center or field of the panels for at least 24 hours. Mechanical fasteners must be used and kept in place until adhesive is fully cured. Furring strips are recommended for concrete wall applications.

#### **SPECIAL APPLICATIONS:**

# Mirrors:

Using a caulking gun, apply adhesive dollops to back of mirror in 5 to 7.5 cm (2 to 3") diameter spots approximately 12 mm (1/2") thick for every square foot of mirror (see Fig.1). Do not place the adhesive too close to the edge to prevent squeeze out. A permanent support system such as plastic holders or clips or mirror channels must be used to hold mirrors in place, both at the top and bottom of mirror. Heavy mirrors may require an additional support system. Place mirror in position, in supports, and carefully press into place within 20 minutes of adhesive application. The adhesive should be compressed so that it is approximately 3 mm (1/8") thick. Do not attempt to remove or reposition the mirror once adhesive has started to cure. Brace top of mirror to hold in place while the adhesive cures, usually 24 hours. Mirrors should not be mounted to wallpaper, painted surfaces, plaster, natural stone, fire retardant plywood, pressure treated wood or any surface that is damaged or not structurally sound. Total time required for curing depends upon temperature, humidity, porosity of substrate and amount of air that can reach the adhesive. For nonporous surfaces longer curing time will be required. Fully sealing around the edges may extend cure times.

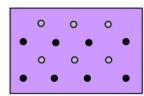


Fig.1

**SPECIAL NOTE:** Not recommended for overhead mirror installations or mirror overlays. Do not apply horizontal or continuous adhesive beads. Do not use on mirrors exhibiting damage or scratches on the mirror backing as adhesive may cause damage to reflective coating.

# **Tub Surrounds:**

#### Preparation:

- 1. The adhesive is grey in color and requires the wall be painted a dark color as the adhesive may show through the surround.
- 2. The temperature of the adhesive, the surfaces and the working area must be above 10°C (50°F). Wait to cut nozzle and puncture inner seal of the cartridge until step 7.



Revision: 09/01/2024 Supersedes: 02/03/2021

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## **DIRECTIONS**

- **3.** Walls must be dry and free of dirt, waxes, soap and other residues. Painted glossy surfaces require sanding. Remove all paint, wallpaper, old adhesive and any loose materials. Unpainted, waterproof drywall or cement board is the best backing for tub and shower units. Use primer to seal areas containing exposed joint compound.
- **4.** Lay panels flat and allow them to come to room temperature 18°C to 24°C (65°F to 75°F) for at least 24 hours before installing. For best results wipe tub surround panels with rubbing alcohol where adhesives or sealants may be applied. Do not use paint thinner or other solvents and allow panels to dry before applying adhesive. **Danger:** rubbing alcohol is flammable. Refer to the manufacturer's label and SDS for health and safety instructions. Use in a well-ventilated area away from ignition sources. Do not use bent or bowed panels. Make sure corners are 90° from top to bottom.
- **5.** Pre-fit all materials following the tub surround manufacturer's instructions for proper installation of their product and for aligning and cutting panels for hardware/plumbing openings, before using adhesive. **Tip:** use the cardboard box the tub kit came in as a template. Measure the spout and faucet placement onto the cardboard template and make cut-outs. Position cardboard in place on the wall and check for correct cut-out placement. Transfer markings onto the tub panel. Make all cuts in tub panel according to manufacturer instructions and set each tub panel in place in the order suggested by the manufacturer.
- **6.** Use masking tape to temporarily support tub panels in place. Make sure the tops of all panels are level and all pieces are aligned. Using a pencil, outline tub panels in their correct position before gluing.
- 7. Place the adhesive cartridge in a caulking gun and cut nozzle at a 45° angle to required opening, at least 6 mm (¼") or wider and puncture the inner seal of the cartridge. Do not get adhesive on finished parts of tub surround. If this happens remove immediately using mineral spirits to clean wet adhesive from surface following the solvent manufacturer's precautions for use on plastic surfaces.

**Application:** Apply adhesive in continuous 6 mm (¼") vertical beads to paneling starting 2.5cm (1") in from the edges and continuing from top to bottom every 15 cm (6") across the back panel. Do not apply adhesive where the panel will not make contact with the wall (for example curved corners). Press tub surround panel firmly into place within 10 minutes of applying adhesive. Apply hand pressure across the entire panel surface to ensure good adhesive contact.

**Alternate Application Method:** Adhesive may be applied in continuous "S" pattern every 20 cm (8") apart and only on flat sections that closely mate with existing wall surface.

**NOTE:** All application methods will require bracing for at least 24-48 hours to maintain contact while adhesive cures. Panel edges can be supported with masking tape. After 20 minutes hand press again over all areas of installation to ensure good contact. Connect seams of panels according to tub surround manufacturer instructions. Edges can be sealed no sooner than 24 hours after installation. Allow at least 24 hours after sealing before using the area.

# Clean-up:

Clean tools and uncured adhesive residue immediately with mineral spirits. Cured adhesive may be carefully cut away with a sharp-edged tool. LePage PL® PREMIUM MAX can only be removed mechanically once cured.

# **STORAGE & DISPOSAL**

**NOT DAMAGED BY FREEZING**. Store product at standard conditions which are defined as  $22 \pm 2^{\circ}$ C ( $72 \pm 4^{\circ}$ F) and <50% relative humidity. After completion of work, seal cartridge nozzle tightly with aluminum foil. Wrap the foil tightly around the nozzle then seal with tape. Applying petroleum jelly around the opening before sealing with aluminum foil can create a more airtight seal. Product cures with exposure to moisture. Take unwanted product to an approved household hazardous waste transfer facility. Hardened material may be disposed of with trash.

# LABEL PRECAUTIONS

**WARNING:** Contains crystalline silica and silanes. May be harmful if inhaled or swallowed. Methanol is released during application and cure, which may affect the nervous system causing dizziness, headache, or nausea. Use in a well-ventilated area. Do not breathe vapors. Avoid eye and skin contact. Prolonged or repeated skin contact with uncured adhesive may cause an allergic reaction. Wear impermeable gloves and safety glasses when applying product. Remove contact lenses before using adhesive. Wash hands after using. **KEEP OUT OF THE REACH OF CHILDREN.** 

**FIRST AID TREATMENT**: For eye contact flush with water for 15 minutes. Call a physician if irritation develops and persists. For skin contact, wash thoroughly with soap and water. If affected by inhalation, remove to fresh air and get medical attention. If ingested, do not induce vomiting; call a physician or Poison Control Center immediately. **DO NOT TAKE INTERNALLY**.

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. Henkel recommends purchasers/users should test the products to determine acceptable quality and suitability for the intended use. All adhesive/sealant applications should be tested under simulated or actual end use conditions to ensure the adhesive/sealant meets or exceeds all required project specifications. Since assembly conditions may be critical to adhesive/sealant performance, it is also recommended that testing be performed on specimens assembled under simulated or actual production conditions. 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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