



TECHNICAL DATA SHEET



PL[®] Premium[®] Construction Adhesive

Description: LePage PL Premium is a one component, polyurethane based, moisture-curing adhesive that provides superior adhesion to most common construction materials. It is VOC compliant and contains no chlorinated solvents or water. It may be used inside or outside and will last as long as the surfaces it joins together. Since the bonding strength of PL[®] Premium is so strong, it offers twice the coverage of conventional adhesives therefore much less adhesive is required to complete projects. PL Premium is 3 times stronger than ordinary solvent based construction adhesives during initial 24 hour cure. It is also waterproof, paintable and cures even in cold temperatures. Ideal for subfloor installations.

Available As:

Item #	Size	Package
1403221	295 ml	Paper Cartridge
1403222	825 ml	Paper Cartridge

Features & Benefits:

- Water Resistant
- Twice the Coverage
- Long Open Time
- Extended Repositioning Time
- Non-Shrinking
- Paintable

Recommended For:

PL Premium bonds to most common construction materials such as wood, plywood, OSB, MDF, treated wood, hardwood flooring, concrete, stone, granite, marble, slate, masonry, brick, foam insulation of all sorts including EPS (expanded polystyrene foam), XPS (extruded polystyrene foam), and polysio (urethane) foam, carpets, metal, stainless steel, galvanized metal, lead, cement-based products, fiber cement panels, ceramic, fiberglass, drywall, rigid and cellular vinyl/PVC trim and molding and polyash trim.

For Best Results:

- Not for use on tub surrounds and other solid sheet goods made from rigid polystyrene
- Not for use in water submersion applications
- Not for use on polyethylene, polypropylene, flexible vinyl (FPVC)
- Not for use on polyethylene (PE) films that cover certain XPS or EPS foam insulation board
- Not for use on bitumen coated surfaces
- Certain materials such as rubbers and plastics may have bonding difficulties. Test before use.

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 a 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:	Brown	
Appearance:	Thick paste	
Base:	Polyurethane	
Odor:	Minimal	
% Solids:	90% by weight	
Specific Gravity:	1.26	
Flash Point:	93°C (200°F)	
Viscosity:	550,000	@ 5 rpm and 24°C (75°F)
VOC Content:	4% by weight	CARB
	45 g/l	SCAQMD rule 1168
Shelf Life:	12 months from date of manufacture (unopened)	
Lot Code Explanation:	Example: 3L 4028 HP11	
Stamped on bottom plunger of cartridge	4 = Last digit of year of manufacture 028 = Day of manufacture based on 365 days in a year So 4028 = January 28, 2014	

Typical Application Properties:

Application Temperature:	Adhesive should be above -7°C (19°F) and 35°C (95°F) For best results, store product at room temperature 24 hours before use	
Open Time:	15 to 20 minutes*	@ 25°C (78°F) and 50% R.H.
Repositioning Time:	30 to 45 minutes*	@ 25°C (78°F) and 50% R.H.
Clamping Time:	24 hours	
Cure Time:	24 to 48 hours*	@ 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:	Tan	
Cured Form:	Non-flammable rubbery solid	
Service Temperature:	-18°C (0°F) to 71°C (160°F) -18°C (0°F) to 121°C (250°F)	Long Term (Continuous) Short Term (Intermittent)
Water Resistant:	Yes	
Compression Shear Strength:	ASTM D3498	
Dry Lumber:	4.4 N/mm ² (638 psi)	
Wet Lumber:	2.8 N/mm ² (404 psi)	
Frozen Lumber:	5.3 N/mm ² (773 psi)	
Gap-Filling:	3.2 N/mm ² (468 psi)	
Moisture Resistance:	4.0 N/mm ² (585 psi) No delamination	
Bond Strength Development:	@ 23°C (73°F) Douglas Fir to Douglas Fir Plywood	
6 hours cure:	1.4 N/mm ² (208 psi)	
8 hours cure:	1.9 N/mm ² (279 psi)	
16 hours cure:	3.1 N/mm ² (450 psi)	
24 hours cure:	3.6 N/mm ² (542 psi)	
Compression Shear Strength:		
Granite (unpolished) to Douglas Fir Plywood:	3.2 N/mm ² (467 psi)	7 day cure
Marble (unpolished) to Douglas Fir Plywood:	3.7 N/mm ² (542 psi)	7 day cure
Granite to Granite (unpolished):	2.6 N/mm ² (371 psi)	7 day cure + 24 hrs water immersion



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Marble to Marble (unpolished):	2.1 N/mm ² (305 psi)	7 day cure + 24 hrs water immersion
Compression Shear Strength:		
OSB to Expanded cellular PVC:	1.8 N/mm ² (263 psi)	24 hour cure
PVC trim molding to Pine:	2.1N/mm ² (305 psi)	24 hour cure
Fiber cement to Douglas Fir plywood:	2.1 N/mm ² (305 psi) Substrate failure	7 day cure
Fiber cement to Douglas Fir plywood:	2.6 N/mm ² (377 psi) Substrate failure	14 day cure + 24 hrs water immersion
Tensile Shear Strength:		
Douglas Fir plywood to Stainless steel:	4.1 N/mm ² (590 psi) Substrate failure	
Douglas Fir plywood to Hot galvanized steel:	3.5 N/mm ² (512 psi) Substrate failure	
Shear Strength:		APA AFG-01
Wet Lumber		Bond area = 1.5 in ²
Douglas Fir:	356 kg (785 lbs)	
Southern Pine:	269 kg (593 lbs)	
Frozen Lumber		
Douglas Fir:	380 kg (837 lbs)	
Southern Pine:	346 kg (762 lbs)	
Dry Lumber		
Douglas Fir:	404 kg (890 lbs)	
Moisture Resistance		
Douglas Fir:	413 kg (911 lbs)	
Oxidation Resistance	Passed	
Specifications:	Meets and exceeds the following specifications:	
	<ul style="list-style-type: none"> • ASTM D3498 • APA AFG-01 • ASTM C557 • Meets the performance requirements of HUD UM 60A • GreenGuard Certified 	

Directions:

Tools Typically Required:

Utility knife, caulking gun, tool to puncture cartridge seal, spray mist water bottle.

Safety Precautions:

Wear gloves. Cured adhesive on bare skin will not come off immediately with washing and will cause skin to darken. Cured adhesive and discoloration will come off in about 3 days.

Preparation:

Adhesive should be above -7°C (19°F). Surfaces must be clean and free of frost, standing water, grease, dust and other contaminants. Pre-fit all materials and protect finished surfaces. Cut nozzle at a 45° angle to desired bead size and puncture inner seal. Be very careful not to allow PL Premium to cure on a finished surface.

Application:

Apply adhesive to one surface of the material being bonded. Press the surfaces firmly together within 15-20 minutes. Materials may be repositioned within 30-45 minutes after joining the surfaces. If bonding two non-porous surfaces (such as metal and fiberglass), add water in the form of a very light or atomized spray from a spray mist water bottle to the extruded adhesive. The repositioning time will then be reduced to less than 30 minutes. Use mechanical support for 24 hours while the adhesive cures. Cure time is dependent upon temperature, humidity, porosity of substrate and amount of adhesive used. Low temperature and humidity will slow cure time. When bonding EPS and XPS foam insulation, avoid cure and surface temperatures above 32°C (90°F).

Clean-up:

Clean tools and adhesive residue immediately with mineral spirits. PL® Premium must be removed mechanically once cured. Solvents have little effect on cured PL Premium.



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Storage & Disposal: Not damaged by freezing. After completion of work, seal cartridge nozzle tightly with aluminum foil. Wrap the foil tightly around the nozzle and seal it 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. Use an approved hazardous waste facility for disposal.

Label Precautions: **CAUTION! POISON! FUMES MAY BE HARMFUL. MAY CAUSE SKIN AND RESPIRATORY SENSITIZATION.** Do not use if you have chronic lung or breathing problems or if you have ever had a reaction to isocyanates. Do not swallow. Do not breathe fumes. Use only in a well ventilated area. Wear gloves. Wear appropriate respiratory protection for prolonged use. **KEEP OUT OF REACH OF CHILDREN.**

FIRST AID TREATMENT: Contains petroleum distillates. If swallowed, call Poison Control Centre or doctor immediately. If on skin, wipe away immediately. If hardened, do not peel. If breathed in, move person to fresh air.

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

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