Revision: March 31, 2010 Supersedes: October 16, 2009 Ref. #: 1470-0



# **TECHNICAL DATA SHEET**



PL® Premium
Polyurethane Construction
Adhesive

Henkel Canada Corporation
Professional and Consumer Adhesives

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LePage® PL® Premium is a revolutionary construction adhesive that provides superior results and is safe to use. It may be used inside or outside and will last as long as the surface 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. It is also waterproof, paintable and cures even in cold temperatures. Ideal for sub floor installations.

## **RECOMMENDED FOR:**

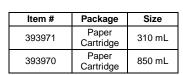
Bonds most common construction materials such as wood, treated wood, hardwood flooring, concrete, stone, marble, slate, masonry, brick, foam insulation of all sorts, carpets, metal, lead, cement-based products, ceramic, fiberglass, drywall and mirrors.

## **NOT RECOMMENDED FOR:**

- Polystyrene Tub Surrounds
- Water submersion applications
- Polystyrene, polyethylene or polypropylene.
- Certain materials such as rubbers and plastics may have bonding difficulties. Test before
  use.

## **FEATURES & BENEFITS:**

| Feature            | Benefits                                    |  |
|--------------------|---|--|
| Water resistant    | Can be used outdoors, ideal for humid areas |  |
| Low odour          | Excellent for indoor projects               |  |
| Twice the coverage | Less adhesive required                      |  |
| Long open time     | Extended repositioning time                 |  |
| Non-shrinking      | Does not crack or lose bond                 |  |
| Paintable          | Blends with surroundings                    |  |



## **COVERAGE**

- A 310 mL cartridge will extrude approximately 11 m (36 ft) of a 6 mm (1/4") diameter bead
- A 850 mL cartridge will extrude approximately 30 m (98 ft) of a 6 mm (1/4") diameter bead

## **DIRECTIONS**

## **Tools Typically Required:**

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

## 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 discolouration will come off in about 3 days.

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#### Preparation:

Use above 5°C (40°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. Materials may be repositioned within 45 minutes after applying the adhesive. If bonding two non-porous surfaces (such as foam, metal and fiberglass), 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 30 minutes. Use mechanical support for 24 hours while the adhesive cures.

#### Clean-up:

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

## STORAGE AND 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.

## **PRECAUTIONS**

**FUMES MAY BE HARMFUL.** Do not breathe fumes. Use only in a well ventilated area. **KEEP OUT OF REACH OF CHILDREN.** 

**FIRST AID TREATMENT:** Contains petroleum distillates. If swallowed, call Poison Control Center or doctor immediately. If breathed in, move person into fresh air.

Refer to the 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.

## **TECHNICAL DATA**

| Typical Uncured Physical Properties: |   | Typical Application Properties |   |  |
|--------------------------------------|---|--------------------------------|---|--|
| <u>Colour:</u>                       | Brown   | Application Temperature:       | Apply above 5°C (41°F)  |  |
| Appearance:                          | Thick paste   | Open Time:                     | 30 minutes  |  |
| Base:                                | Polyurethane  | Dry Time:                      | 24 to 48 hours @ 25°C (78°F) and 50% RH Cure time is dependent upon temperature, humidity, porosity of substrate and amount of adhesive used. |  |
| Viscosity:                           | 550,000 cps<br>@ 5 RPM and 75°F (24°C)  |                                |   |  |
| Flash Point:                         | 121°C (250°F)   | Odour:                         | Minimal   |  |
| Specific Gravity:                    | 1.26  | Clamping Time:                 | 24 hours  |  |
| % Solids:                            | 90% by weight   | Clean Up:                      | Clean up uncured adhesive residue with mineral spirits. Scrape away cured adhesive using a sharp-edged tool.                                  |  |
| VOC Content:                         | 45 g/L (4% by weight)   |                                |   |  |
| Shelf Life:                          | 12 months from date of manufacture (unopened)   |                                |   |  |
| Lot Code Explanation:                | 3L <b>0028</b> HP11   |                                |   |  |
|                                      | 0 = Last Digit of Year of Manufacture<br>028 = Day of Manufacture based on<br>365 days per year |                                |   |  |
|                                      | For example:  |                                |   |  |

0028 = January 28, 2010

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# **Typical Cured Performance Properties**

Colour: Brown Water Resistance: Yes

Cured form: Non-flammable, rubbery solid Specifications: APA AFG-01 ASTM D 3498

Service Temperature: Long Term: Short Term: -18°C (0°F) to 71°C (160°F) -18°C (0°F) to 121°C (250°F)

ASTM C 557 FHA Bulletin UM-60.

Bond Strength: See charts below.

## American Plywood Association AFG-01 Test Results

|  | Shear                |                                       |                      |
|--|----------------------|---------------------------------------|----------------------|
| APA AFG-01   | Average<br>(pounds)* | Minimum<br>Requirements<br>(pounds)*  | Compliance<br>Status |
| Test A (Wet Lumber)                                  |                      |                                       |                      |
| On Douglas Fir                                       | 785                  | 225                                   | Passed               |
| On Southern Pine                                     | 593                  | 225                                   | rasseu               |
| Test B (Frozen Lumber)                               |                      |                                       |                      |
| On Douglas Fir                                       | 837                  | 150                                   | Passed               |
| On Southern Pine                                     | 762                  | 150                                   | rasseu               |
| Test C (Dry Lumber)                                  |                      |                                       |                      |
| On Douglas Fir                                       | 890                  | 225                                   | Passed               |
| Moisture Resistance On Douglas Fir (No delamination) | 911                  | 225                                   | Passed               |
|  |                      |                                       |                      |
| Oxidation Resistance                                 | Pass                 | 100% - No sign of fracture when bent. | Passed               |

<sup>\*</sup> Bond area = 1.5 in<sup>2</sup>

## **Additional Bond Strength Data**

|   | Shear Strength<br>(psi) |        |
|---|-------------------------|--------|
| Substrates                                  | 24 hours                | 7 days |
| Plywood to Douglas Fir                      | 541                     | 858    |
| Plywood to Treated Lumber                   | 861                     | 1000   |
| Metal to Douglas Fir                        | 313                     | 313    |
| Foam to Foam                                | 37*                     | 37*    |
| OSB to OSB (wet)                            | 354                     | 544    |
| Wet Douglas Fir to Metal                    | 217                     | 313    |
| Frozen Douglas Fir to Frozen<br>Douglas Fir | 360                     | 828    |
| Plywood to F.R.P                            | 100                     | 222    |

<sup>\*</sup>Resulted in foam failure