LEPAGE TECHNICAL BULLETIN

Division of Henkel Canada Corporation

BULLDOG GRIP
PL Premium
CONSTRUCTION ADHESIVE

DESCRIPTION:

PL Premium is a revolutionary new 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. Because the bonding strength of PL Premium is so strong, it offers twice the coverage of conventional adhesives and much less adhesive is required to complete projects. It is also waterproof, paintable and useable in all climate extremes.

USES:

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

Limitations:

- Although atomizing the adhesive with water will speed up curing, a continuous flow of water, standing water or ice between the curing adhesive and substrate may interfere with bonding.
- Certain materials such as “plastic” can be difficult to bond with PL Premium.
- PL Premium is not recommended for Tub Surround Kits or Shower Kits.
- Not intended for applications with continuous water submersion.

TYPICAL PROPERTIES

Polymer type	Polyurethane
Viscosity	Typical 8,000 psi
Solids, %	95 ± 2
Open time	45- 60 minutes
Density.	1.26 g/cc
Flash point	121C (250°F)
Freeze-thaw stability	Unlimited cycles
Shrinkage	None
VOC	120.9 grams per liter
Service Temp.	-18°C (0°F) to long-term 71°C(160°F), short-term 93°C(200°F)
Bonding	**Makes bonds from** 0°C to 49°C (40 F to 120 F)
Non-flammable	
Non-combustable	

Cures by:

Reacting with moisture. At higher levels of moisture, the cure rate will be faster.
At lower moisture levels the cure rate will be slower. (Note: Too much moisture, such as standing water or a continuous flow of water, will have the opposite effect and interfere with adhesion.)

Coverage:

A 300 ml cartridge extrudes 10.6m (34ft) using a 6mm(1/4”) diameter bead.
A 825 ml cartridge extrudes 29m (95ft) using 6mm (1/4”) diameter **bead.**

Specifications: **Conforms to CAN CGSB 71GP 26 and AFG-01 (US)**

PL Premium meets and exceeds the requirements of ASTM D 3498 specification. The specimen average psi compared to specified requirements can be summarized as follows:

TEST (Shear Strength)	AVERAGE (psi)	MINIMUM REQUIREMENTS (psi)	COMPLIANCE STATUS
Test A (Wet Lumber)			
w / Douglas Fir	523	150	Passed
w / Southern Pine	395	150	Passed
Test B Frozen Lumber			
w / Douglas Fir	558	100	Passed
w / Southern Pine	508	100	Passed
Test C Dry Lumber			
w / Douglas Fir	593	150	Passed
Gap-Filling			
w/Douglas Fir	485	100	Passed
Moisture Resistance			Passed
w/Douglas Fir	607	150	
Moisture Resistance	100%	100% - No delamination	Passed
Oxidation Resistance	100%	100% - No sign of fracture when bent.	Passed

PREPARATION:

Wear disposable gloves while using PL Premium or staining of the hands will occur because of moisture in the skin. Cured adhesive on bare skin will not come off immediately with washing. Staining and adhesive will come off in about 3 days.

Be very careful not to allow PL Premium to cure on a finished surface. It is next to impossible to remove without sanding. Solvents have little effect on PL Premium once cured.

Surfaces must be completely dry, free of moisture, and clean.

Surface temperatures above 5°C (40°F) are recommended

APPLICATION:

. PL Premium comes ready to use. Do not open cartridges until preparatory work has been completed.

Cut nozzle to desired size opening.

Place the cartridge in caulking gun and puncture the seal inside the nozzle.

Apply the adhesive with a steady pressure.

Bond and support the assembly until the adhesive has set. (16 to 24 hours)

Porous Surfaces

As PL Premium reacts with water or moisture and cures, certain materials such as concrete, gyprock and wood will allow moisture to pass through. In other words those materials “breath”. The necessary moisture required to cure the glue will pass through those materials and generate the cure. In this case, it is simply required that a bead of adhesive be applied to one side and press that side to another surface within the allotted open time of 45 minutes. Add support for about 24 hours.

NON Porous Surfaces to each other

There are other materials such as foam insulation, metal, and fiberglass, which are commonly used in construction and renovating which “do not breath”. When adhering non-porous surfaces to each, there is very little water availability to the adhesive and it must be added. To assist the cure, add the water in the form of a light or atomized spray from a plant mister bottle to the extruded adhesive. Bond the surfaces together and

add your support. Keep the support for 16 to 24 hours until adhesive has set. Atomizing the adhesive with water will reduce the repositioning time to less than 30 minutes.

SUPPORT:
Support is required until the adhesive has set. The set time may vary depending on the % humidity and the temperature, during the curing period

Working Time: You can work with the adhesives up to 45 minutes. If adhesive is atomize with a fine mist of water, the working time will be reduced to less then 30 minutes .

Storage: After completion of your work, seal all openings tightly with aluminum foil. Wrap the foil tightly around the nozzle and seal it with a piece of scotch tape. Applying Vaseline around the opening before sealing with aluminum foil or scotch tape can create a more air tight seal.

Coverage:
A 300 ml cartridge extrudes 10.6m (34ft) using a 6mm(1/4") diameter bead.
A 825 ml cartridge extrudes 29m (95ft) using 6mm (1/4") diameter bead.

Curing Rate:
A 6mm (1/4") inch bead cures in approximately 16 - 24 hours at 25°C (78°F) and 50 % relative humidity.

Clean up: Immediately after use, clean equipment with Acetone or Mineral Spirits.
Cured sealant can be removed by cutting with a sharp edged tool, thin films by abrading.
****Note:** Be very careful not to allow PL Premium to cure on a finished surface. It is next to impossible to remove without sanding. Solvents have little effect on PL Premium once cured.

Additional Features: Can be painted, sanded, and cures even in cold temperatures.

SHELF LIFE: 1 year in unopened tubes at 24°C (75°F), 50% relative humidity

Refer to the Material Safety Data Sheet for further information

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purposes under their own operating conditions. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose or any other warranty, express or implied. No representative of ours has any authority to waive or change the foregoing provisions. Nothing contained herein shall be construed to imply the non-existence 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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