

# Loctite® Power Grab® Ultimate Crystal-Clear Construction Adhesive



## DESCRIPTION

Loctite® Power Grab® Ultimate Crystal Clear is a high-quality interior/exterior construction adhesive that delivers crystal clear results in most applications. This formula works in all conditions, all weather and on most materials. It can be applied in wet conditions as well as bond two non-porous surfaces.

### Available As:

Item #	Package	Size
2442595	Plastic Cartridge	9 fl. oz. (266 mL)
2442596	Squeeze tube	2.7 fl. oz. (80 mL)

## FEATURES & BENEFITS

- Solvent Free – VOC Compliant
- High Solids – No Shrinkage
- Easy Application
- Works on a wide variety of surfaces, both porous and non-porous, and damp surfaces
- Excellent temperature Resistance
- Weatherproof & Water Resistant
- Can be used indoors and outdoors

## RECOMMENDED FOR

Bonds to most common construction materials such as wood, plywood, OSB, MDF, concrete, glass, marble, granite, tile, porcelain, stone, masonry, brick, foam insulation of all sorts including EPS (expanded polystyrene foam), XPS (extruded polystyrene foam), metal, ceramic, drywall, rigid and cellular vinyl/PVC trim and molding, and some plastics.

## LIMITATIONS

- Marine Applications
- Water submersion applications or constantly damp environments. Wet surface application is possible if surfaces have the possibility to dry.
- Polyethylene, polypropylene, polytetrafluoroethylene (PTFE), and flexible / plasticized PVC, acrylic glass, copper, and brass
- Polyethylene (PE) films that cover certain XPS or EPS foam insulation boards
- Bitumen coated surfaces
- Certain materials such as rubbers and plastics may have bonding difficulties. Test before use.
- Adhesive may degrade if exposed to direct sunlight (i.e. glass table top repairs)
- Flexible sheet goods
- Not suitable for Mirror applications
- Do Not use building materials that are warped or show evidence of warping. These materials will experience bonding difficulties.

## COVERAGE

<b>For a 9-fl. oz. (266 ml) cartridge:</b>	
▪ A 1/4" (6 mm) bead extrudes approximately 27.6 ft. (8.4 m)	▪ A 3/8" (9.5 mm) bead extrudes approximately 12.3 ft. (3.7 m)
<b>For a 2.7-fl. oz. (80 ml) Squeeze Tube:</b>	
▪ A 1/4" (6 mm) bead extrudes approximately 8.3 ft. (2.5 m)	▪ A 3/8" (9.5 mm) bead extrudes approximately 3.7 ft. (1.1 m)

## TECHNICAL DATA

Typical Uncured Physical Properties:	Typical Application Properties
<u>Color:</u> Clear / Transparent <u>Appearance:</u> Thick paste <u>Base:</u> Silane Modified Polymer <u>Viscosity:</u> 1,200,000 cps <u>Specific Gravity:</u> 1.65 <u>VOC Content:</u> 3.49% by weight (CARB) 58.2 g/L (SCAQMD rule 1168) <u>Shelf Life:</u> 12 months from date of manufacture Stored at standard conditions <u>Lot Code Explanation:</u> YYDDD YY = Last Two Digits of Year of Manufacture DDD = Day of Manufacture based on 365 days per year For example: 18060 = March 1, 2018	<u>Application Temperature:</u> The adhesive should be above 41°F (5°C) and below 104°F (40°C) for optimum curing <u>Odor:</u> Alcohol <u>Open Time:</u> 10 minutes* <u>Repositioning Time:</u> 5-10 minutes* <u>Clamping Time:</u> 24 hours <u>Extrusion Force:</u> 92 lb. @ 73°F <u>Cure Time:</u> 24 to 48 hours* at 78°F (25°C) and 50% RH *Time is dependent upon temperature, humidity, porosity of substrate and amount of adhesive used *Cure time is greatly increased in cold temperatures <u>Clean Up:</u> Clean up uncured adhesive residue with mineral spirits. Scrape away cured adhesive using a sharp-edged tool. Follow solvent manufacturer's precautions for using solvents.

### Typical Cured Performance Properties

<u>Color:</u> Clear / Transparent <u>Cured form:</u> Non-flammable, hard solid <u>Service Temperature:</u> -22°F (30°C) to 158°F (70°C) <u>Water Resistance:</u> Yes	<u>Sandable:</u> No <u>Paintable:</u> Yes, when fully cured
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Tensile Strength (1-inch Overlap) Bond Strength Development			Tensile Strength (1-inch Overlap)		
4 Hours:	18.5 psi	@73°F (23°C)	Aluminum to Maple:	128.3 psi	Bonds cured 7 days @ 73°F (23°C)
8 Hours:	65.8 psi	Maple to Maple	Aluminum to Aluminum:	83.1 psi	
24 Hours:	125.2 psi		Maple to Maple:	161.2 psi	
7 days:	161.2 psi				

## DIRECTIONS

**Tools Typically Required:**

Utility knife, caulking gun, tool to puncture cartridge seal, plant mister bottle containing water (if bonding two non-porous surfaces).

**Safety Precautions:**

Wear gloves to avoid skin contact and wash hands after use.

## DIRECTIONS

### **Preparation:**

For best results use above 41°F (5°C). For easier application, ensure the product temperature is 60°F (15°C) or higher but below 90°F (32°C). Surfaces must be clean and free of frost, standing water, grease, oil, dust, release agents, and other contaminants. Wet surfaces are possible if they have the possibility to dry. Pre-fit all materials and protect finished surfaces.

**Cartridge:** Remove nozzle and cut nub on cartridge. Screw on nozzle and cut at a 45° angle to required opening, at least ¼ inch or wider.

**Squeeze Tube:** Remove cap and puncture inner seal.

Be very careful not to allow Loctite® Power Grab® Ultimate Crystal Clear to cure on a finished surface (removal may not be possible without surface damage).

- Do Not use building materials that are warped or show evidence of warping. These materials will experience bonding difficulties.

### **General Application Guidelines:**

Apply adhesive to one surface of the materials being bonded. Press the surfaces firmly together within 10 minutes. Materials may be repositioned within 5-10 minutes after applying the adhesive. If bonding two non-porous surfaces (such as foam, metal and fiberglass) 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 5 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 temperature and humidity will slow cure time. When bonding EPS and XPS foam insulation, avoid cure and surface temperatures above 90°F (32°C).

### **Application Tips:**

1. For small, relatively smooth and level surfaces, use straight, parallel beads of adhesive (Fig.1).
2. For large areas a parallel serpentine beads work best placed 6-8" O.C. (Fig.2).
  - **Important:** In case of two non-porous surfaces, adhesive beads must not merge or form a continuous area as contact requires air/moisture to cure.
3. When using in exterior or outdoor applications, it is best to apply adhesive in vertical beads from top to bottom to help support vertical load conditions.
4. For rough and uneven surfaces using the spot method works best (Fig.3)

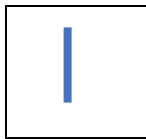


Fig 1.



Fig. 2

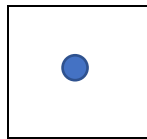


Fig 3.

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

For bonding to relatively smooth and level surfaces apply adhesive as a series of vertical beads 10 inches apart (perimeter gluing is not recommended). Start the beads approximately 1 inch from the panel edge applying ¼" to ⅜" round beads of adhesive. Immediately after applying the adhesive place the foam 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 material used, the humidity and the temperature at time of application.

When bonding drywall or paneling to wood/metal stud framing, apply ¼" to ⅜" round bead of adhesive to each stud starting 3 inches from top and ending 3 inches from bottom. All drywall applications require perimeter nailing/screws 16" O.C. and 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 ¼" 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.

### **Clean-up:**

Clean tools and adhesive residue immediately with mineral spirits following solvent manufacturers precautions. Loctite® Power Grab® Ultimate can only be removed mechanically once cured.

## STORAGE AND DISPOSAL

**Not damaged by freezing.** Store product at standard conditions which are defined as 72 ± 4°F (22 ± 2°C) and <50% relative humidity. 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

**WARNING! Uncured adhesive irritates eyes, skin, and respiratory tract.**

**WARNING!** Contains 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 gloves and safety glasses when applying product. Remove contact lenses before using adhesive. Wash hands after using.

**FIRST AID:** 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. KEEP OUT OF THE REACH OF CHILDREN.**



**WARNING: Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**

Refer to the Safety Data Sheet (SDS) for further information

## LIMITED WARRANTY

This product is warranted to be free from defects in materials when used as directed. Henkel's sole obligation shall be, at its option, to replace or refund the purchase price of product proven to be defective. Henkel makes no other warranty, express or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE and will not be liable for consequential or incidental damages. This limited warranty gives you specific legal rights, which vary from state to state. Henkel may be contacted at 1.800.624.7767 M-F 9:00 am to 4:00 pm ET for warranty assistance

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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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