

PL Subfloor Foam Construction Adhesive

DESCRIPTION

LOCTITE® PL Subfloor Foam Construction Adhesive is a high strength, polyurethane-based adhesive designed for subfloor applications to reduce floor squeaks. It applies as a collapsing gel foam then slowly expands to fill gaps, providing a faster application versus traditional adhesives while also exhibiting a superior bond.

Available as:

Item #	Package	Size	Color
2973394	Metal Aerosol Canister	21.1 fl. oz. (598 g)	Dark grey

FEATURES & BENEFITS

- High strength – exceeds ASTM D3498-19
- Easy and convenient handling saves application time¹
- Contributes to thermal and sound insulation
- Delivers higher yield vs traditional construction adhesives²
- Damp and cold application
- High surface coverage – 1 can covers up to 22 subfloor sheets³
- Reduces floor squeaking

RECOMMENDED FOR

LOCTITE PL Subfloor Foam Construction Adhesive is designed primarily for bonding subfloor boards to joists including common wood-to-wood assemblies and glued floor systems on dry, frozen, or damp surfaces. This product may also be used for interior and exterior bonding of common building materials such as OSB, plywood, concrete, and masonry.

LIMITATIONS

- PL Subfloor Foam Construction Adhesive is not a fire stopping material and SHOULD NOT be used in areas that require fireproof or fire stopping materials.
- Product should not be used as an insulating sealant to fill gaps and voids.
- For cold weather application, product should be stored at room temperature for at least 12 hours before application.
- Should not be used on warped boards.
- Not recommended for use in areas of high heat such as around fireplace openings.
- Not compatible with bitumen or asphaltic coated surfaces or products.
- Does not bond polyethylene, polytetrafluoroethylene (PTFE)/Teflon® or siliconized surfaces.
- Certain materials such as rubbers and plastics may have bonding difficulties. Test before use.
- Not recommended for use on flexible sheet goods.
- Despite significantly higher UV resistance, it is still recommended to protect the foam adhesive from UV radiation. Exposed product should be coated with a protective covering or coating.

COVERAGE

For a 21.1 fl. oz. (598 g) can, a 1/2" (9.6 mm) bead size will deliver approximately 346 ft (105 m) of foam adhesive

Note: Yields shown are based on theoretical calculations, for comparison purposes, and will vary depending on ambient conditions and particular application conditions and particular application

¹ Application time savings based on applying 40 lin. feet (12.2 m) of traditional adhesive compared to 40 lin. feet of foam adhesive

² One can of PL Subfloor Foam Construction Adhesive applied at 1/2" (12.7 mm) bead extrudes approximate amount to 9 – 28 oz. cartridges of traditional adhesive applied at 3/8" (9.5 mm) bead. This value is based on theoretical calculations, for comparison purposes, and will vary depending on ambient conditions and particular application conditions and particular application

³ When utilizing 3/8" (9.5 mm) bead & 16-inch O.C. joist spacing

TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<u>Color:</u>	Dark grey	<u>Application Temperature:</u>	Ambient conditions should be between 41°F (5°C) and 95°F (35°C). Can temperature must be between 41°F (5°C) and 86°F (30°C) • See Cold Weather Use below
<u>Appearance:</u>	Polymer foam	<u>Odor:</u>	Slight ether
<u>Base:</u>	Single component polyurethane	<u>Open Time:</u>	20 minutes*
<u>VOC Content:</u>	14.8 % by weight CARB 149 g/l SCAQMD rule 1168	<u>Collapsing Time:</u>	25 – 30 minutes*
<u>Shelf Life:</u>	18 months from date of manufacture (unopened)	<u>Tack-Free Time:</u>	30 minutes*
<u>Lot Code Explanation:</u>	BEST BY MM/DD/YYYY (bottom of cannister) MM = month, DD = day, YYYY = year Example: BEST BY 10/31/2022 = Product performs best when used by October 31, 2022	<u>Cure Time:</u>	Approximately 24 hours*
		<u>Clean Up:</u>	Clean up uncured foam residue with acetone. Scrape away cured sealant using a sharp-edged tool. Follow solvent manufacturer's precautions for using solvents.

*At 73°F (23°C) and 50% relative humidity. Time is dependent upon temperature, humidity, and depth of sealant applied.

Typical Cured Performance Properties			
<u>Color:</u>	Dark grey	<u>Service Temperature:</u>	-40°F (-40°C) to 194°F (90°C)
<u>Cured form:</u>	Flexible solid	<u>Sandable:</u>	Yes
<u>Water Resistance:</u>	Yes	<u>Paintable:</u>	Yes
<u>Shear Strength ASTM D3498-19:</u>	Plywood	<u>Shear Strength ASTM D3498-19:</u>	OSB
Wet Lumber:	612 psi	Wet Lumber:	724 psi
Frozen Lumber:	681 psi	Frozen Lumber:	574 psi
Dry Lumber:	604 psi	Dry Lumber:	777 psi
Gap Filling:	332 psi	Gap Filling:	249 psi
Moisture Resistance:	416 psi	Moisture Resistance:	453 psi

DIRECTIONS

Tools Typically Required:

LOCTITE Foam Gun and OSI® Foam Clean

Safety Precautions:

Always wear eye protection, gloves and proper work clothes when using PL Subfloor Foam Adhesive. Cured foam adhesive is difficult to remove from skin, clothing, and other substrates. When transporting cans by passenger car, leave the container wrapped in a cloth in the trunk, never in the passenger compartment. Maximum temperature should never exceed 120°F (49°C).

Surface Preparation:

Ensure all surfaces are clean, structurally sound and free of standing water, snow, ice, dust, grease, oil or other contaminants likely to impair adhesion. Cover surfaces not intended to be foamed.

General Preparation:

The temperature of the working area should be between 41°F (5°C) and 95°F (35°C). The temperature of the product should be between 41°F (5°C) and 86°F (30°C). When working in cold conditions, can should be stored at room temperature for at least 12 hours before use. Shake can vigorously before use for 30 seconds (15-20 times minimum) and intermittently during use.

DIRECTIONS

General Application:

Remove plastic cap from the can and screw applicator onto coupling unit until it will go no further. Do not over tighten. Shake can well before use. Adjust bead size with gun regulator screw. To become familiar with product, first test on an experimental surface. With valve end of can down, squeeze trigger to dispense foam while testing extrusion rate and bead size to match with application speed. Once optimized to deliver target bead size, with valve end of can down, squeeze trigger to dispense a continuous foam bead to one substrate. Press substrates together within 20 minutes of dispensing foam adhesive for best results. Slight adjustments to bonded surfaces may be done during this period but do not remove substrate completely as this will damage the adhesive structure and reduce the adhesive strength substantially.

Cold Weather Use:

Cold weather application is possible when ambient temperature is down to 25°F (-4°C) as long as temperature increases to 41°F (5°C) within 12 hours of application, otherwise adhesion and product properties may be impacted. For best results and optimal adhesion leave bonded materials undisturbed for 24-48 hours after application. Product must be kept above 41°F (5°C) during application and all bonding surfaces must be free of snow, ice and frost prior to use. Cold weather conditions may slow cure times.

Subfloor Application:

Strict adherence to adhesive and flooring manufacturer installation instructions must be followed when used with moisture resistant premium engineered flooring panels, particularly when combined with web truss systems.

Once applicator gun is attached shake can well before use and adjust bead size with gun regulator screw. A ½" (12.7 mm) diameter bead is recommended and will collapse down to an approximate 3/8" (9.5 mm) wide gel. To become familiar with product, first test on an experimental surface. With valve end of can down, squeeze trigger to dispense foam while testing extrusion rate and bead size to match with application speed. Once optimized, with valve end of can down, squeeze trigger to dispense a continuous foam bead (3/8 inch / 9.5 mm) to floor joists/framing members, or a serpentine pattern to wide areas such as 2x4 top cords laid flat with "open web truss systems". For tongue and groove panels, apply a continuous line of adhesive (6 mm thick) to groove avoiding excess "squeeze out". Each panel must be positioned in place within 20 minutes of dispensing foam adhesive for best results (avoid sliding or smearing the adhesive). Once the panels are pressed firmly into place, while keeping pressure, secure boards with mechanical fasteners.

Note: If work is delayed or adhesive cures before the subfloor has been laid and fastened, remove all glue with a scraper and reapply. Follow proper gapping and fastening methods as designated by the APA Nailed-Glued Fastening Schedule (Table 14) published in the APA Engineered Wood Construction Guide, Form No. E30W. (Special note: screws are recommended for installing subfloors to any web truss system)

Note: If idle for more than 10 minutes, shake can 15-20 times before applying foam. If not in use for more than 30 minutes, close gun regulator screw completely to secure trigger. Wipe gun tip at the end of each use to avoid adhesive curing on tip.

Changing Foam Cans:

1. It is not recommended to remove the can from the applicator gun before it is totally empty. When replacing the can shake the new can vigorously. Unscrew the empty can and replace it immediately to ensure there is no air left in the gun. If you do not want to replace the can, remove foam adhesive can and clean gun applicator immediately. Hardened foam can only be removed mechanically.
2. Conventional PU insulating foams should not be dispensed from the same gun as the Loctite Subfloor Foam Adhesive.

Clean-up:

Clean tools and uncured foam adhesive residue immediately with OSI Foam Cleaner or acetone. Cured foam adhesive must be carefully cut away with a sharp-edged tool.

STORAGE & DISPOSAL

Product must be stored vertically with valve directed upwards, not horizontally on its side.

Note: When storing gun applicators with foam adhesive cans attached, be sure to store the tool with the can valve pointing downwards. Storing the can upright may cause propellant to leak from the applicator and become inoperative.

Store in a cool, dry place. For maximum performance and shelf life, store between 41°F (5°C) and 77°F (25°C). The product can be stored for a maximum of 1 week at -4°F (-20°C). Do not store below -4°F (-20°C); below this temperature product valve may spontaneously open, resulting in leakage.

Containers are under pressure. Do not expose to open flame or temperatures above 120°F (49°C). Do not store under direct sunlight. Excessive heat can cause bursting and premature aging of components resulting in shorter shelf life. When containers are empty, vent off any excess pressure. DO NOT discard empty can in garbage compactor. DO NOT incinerate. DO NOT puncture, cut, or weld container.

Recommended method of disposal for unused product: Vent off excess pressure and dispose of in appropriate waste receptacle. Dispose of according to provincial and federal governmental regulations.

LABEL PRECAUTIONS

DANGER! EXTREMELY FLAMMABLE. VAPOR MAY CAUSE FLASH FIRE. VAPOR AND SPRAY MIST HARMFUL, OVEREXPOSURE MAY CAUSE LUNG DAMAGE. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION. CONTENTS UNDER PRESSURE.

DANGER! Contains polyurethane prepolymer, methylenediphenyldiisocyanate, dimethylether and hydrocarbon propellant mixture. Do not use near sparks, heat, or open flame. Vapors will accumulate readily and may ignite explosively. Ventilate area during use and until all vapors are gone. **DO NOT SMOKE WHILE USING.** Extinguish all ignition sources. If burned, dried foam may release hazardous decomposition products. Dried foam may be combustible if exposed to flame or temperatures above 240°F. Avoid prolonged exposure to sunlight or heat from radiators, stoves, hot water, and other sources of heat that may cause bursting. Do not puncture, incinerate, burn, or store above 120°F. Do not discard empty can in garbage compactor. Gives off harmful vapor of solvents and isocyanates. Do not use if you have chronic lung or breathing problems, or if you have ever had a reaction to isocyanates. Use with adequate ventilation. Use appropriate respiratory protection when potential to exceed exposure limits exists. If you have breathing problems during use, leave the area and get fresh air. If symptoms develop or persist, call a doctor or obtain medical treatment; have this label with you. **EYE AND SKIN IRRITANT.** Avoid contact with eyes and skin. Prolonged or repeated skin contact may lead to sensitization and dermatitis. Wash hands after using. Do not swallow. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

FIRST AID: For eye contact flush with water for 15 minutes. Call a physician if irritation develops and persists. For skin contact, wipe off excess uncured foam with a clean rag or paper towel immediately. Get medical attention if irritation develops and persists. If affected by inhalation, remove to fresh air and contact a physician. If swallowed, do not induce vomiting. Call a physician or Poison Control Center immediately. **KEEP OUT OF REACH OF CHILDREN.**



WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

Refer to the Safety Data Sheet (SDS) 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. 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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