



PRO Gaps & Cracks Foam

DESCRIPTION

LOCTITE® Pro Gaps & Cracks Foam is a fire rated insulating foam sealant that fills gaps (up to 1 inch) to seal out air, moisture, and pests. This closed cell foam is ready to be used with any standard foam gun applicator which provides superior control and reusability. Pro Gaps & Cracks Foam is recommended for standard gap filling applications like wiring, plumbing, and HVAC penetrations. It can also be used in areas where a fire rated foam is needed. Pro Gaps & Cracks is orange in color and designed to resist the migration of fire & hot gasses in Type V residential (wood frame) construction.

Available as:

Item #	Package	Size	Color
2866859	Metal Aerosol Canister	21.1 oz. (598 g)	Orange

FEATURES & BENEFITS

- Fills gaps up to 1 inch
- High yield of 611 linear feet
- Compatible with standard foam gun applicators
- Fire rated and tested in accordance to:
 - UL 723 in accordance with ASTM E84
 - ASTM E814 (modified)
 - NFPA 286
- Conforms to IRC (International Residential Codes) and IBC (International Building Code) fire blocking requirements

RECOMMENDED FOR

Loctite Pro Gaps & Cracks Foam can be used for filling gaps up to 1 inch around wiring and plumbing penetrations, HVAC duct work, basement and crawl space drafts, sill plates, attic hatches, and for interior/exterior applications. Loctite Pro Gaps and Cracks Foam may be used to help prevent the spread of fire and smoke through concealed service penetrations in Type V construction, and occupancy groups R3 and R5 buildings, in accordance with fire blocking requirements outlined in the International Residential Code and International Building Code. "Fire blocking" is defined by the IBC as the use of approved building materials installed in concealed spaces to resist the migration of fire and hot gases.

LIMITATIONS

- Not for use as a "firestop" product and should not be used in hourly fire rated assemblies that require fire stop products
- Not for use in Type I through Type IV construction
- Some local building codes may restrict the use of polyurethane foams as "fireblocks". Always check local building codes.
- Do not cut foam. The fire-blocking capabilities are greatly compromised if foam is cut or damaged.
- Should not be used in contact with chimneys, heater vents, steam pipes, or other areas which could be subjected to surface temperatures greater than 187°F
- For cold weather application, product should be stored above 41°F (5° C) at least 12 hours before application
- Despite significantly higher UV resistance, it is still recommended to protect the foam from UV radiation. Exposed foam should be coated with a protective covering or coating
- Does not bond polyethylene, polytetrafluoroethylene (PTFE)/Teflon® or siliconized surfaces
- Certain materials such as rubbers and plastics may have bonding difficulties. Test before use
- Flexible sheet goods

COVERAGE

A 21.1 fl. oz. (598 g) can will extrude a ½” bead approximately 611 ft. (186 m)

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

TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<u>Color:</u>	Orange	<u>Application Temperature:</u>	Ambient conditions should be between 14°F (-10°C) and 95°F (35°C). Can temperature should be between 41°F (5°C) and 86°F (30°C).
<u>Appearance:</u>	Minimal expansion foam	<u>Odor:</u>	Slight ether
<u>Base:</u>	Single component polyurethane	<u>Gap Size:</u>	¼” min – 1” max (6 mm – 25 mm)
<u>Specific Gravity:</u>	1	<u>Tack-Free Time:</u>	8 – 10 minutes* at 68-73°F (23°C), 50% relative humidity, and 3 cm diameter bead
<u>VOC Content:</u>	16% by weight CARB 177 g/l SCAQMD rule 1168	<u>Cure Time:</u>	Approximately 12 – 24 hours*
<u>Shelf Life:</u>	18 months from date of manufacture (unopened)	<u>Clean Up:</u>	Clean up uncured foam residue with acetone. Scrape away cured foam using a sharp-edged tool. Follow solvent manufacturer’s precautions for using solvents.
<u>Lot Code Explanation:</u> PROD: MM/DD/YYYY or BEST BY: MM/DD/YYYY (located on bottom of canister) MM = month of manufacture DD = day of manufacture YYYY = year of manufacture Example: PROD: 10/31/2022 = October 31, 2022 is the date of manufacture Example: BEST BY: 10/31/2022 = Product performs best when used by October 31, 2022			

*Time is dependent upon temperature, humidity, and depth of sealant applied.

Typical Cured Performance Properties

<u>Color:</u>	Orange
<u>Service Temperature:</u>	-40°F (-40°C) to 194°F (90°C)
<u>Combustible:</u>	This product is organic and therefore combustible and may constitute a fire hazard if improperly used or installed. It should not be left exposed or inadequately protected. It is strongly recommended, in all applications, any exposed foam be protected by plaster, drywall, cement, or other approved facings.
<u>Core Density:</u>	0.87 – 1.12 lb./ft ³ (14-18 kg/m ³)



Surface Burning Characteristics

Flame Spread:	5	Fire Rating – UL 723 / ASTM E84
Smoke Development:	0	Tested as 2 beads applied at ½” thickness, 8” O.C. covering 5.5% of the exposed test sample area
UL 723 / ASTM E84	UL Classified File #R40832	
ASTM E 814 (modified)	Alternative for maintaining the integrity of penetrations of fire-blocking – Type V, 1-hour fire resistance rated construction only. File Number – R39255.	
IRC and IBC conformance	2015 IBC Chapter 7 section 718 and IRC Chapter 3 section 302.11. - fire blocking requirements	

DIRECTIONS

Tools Typically Required:

Foam Gun applicator

Safety Precautions:

Always wear eye protection, gloves and proper work clothes when using LOCTITE Pro Gaps & Cracks Foam. Protect surrounding work area from accidental foam overspray. Cured foam is difficult to remove from skin, clothing, and other substrates. May discolor skin. 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 and free from dirt, dust, oil, and other contaminants likely to impair adhesion. Surfaces can be moist but not frosted or iced. Cover surfaces not intended to be foamed. To ensure full and even curing of the foam on porous substrates (i.e., brickwork, concrete), moisturize surfaces with water spray before application.

General Preparation:

The temperature of the product must be kept above 41°F (5°C) and for best results between 68°F and 77°F (20°C and 25°C) for at least 12 hours before application (see storage below). Under these conditions, the product can be applied when the surfaces and working area are between 14°F and 95°F (-10°C to 35°C). Shake can well before use. Screw applicator onto coupling unit until it will go no further. Do not over tighten. Shake can well before use (approximately 1 minute).

Application:

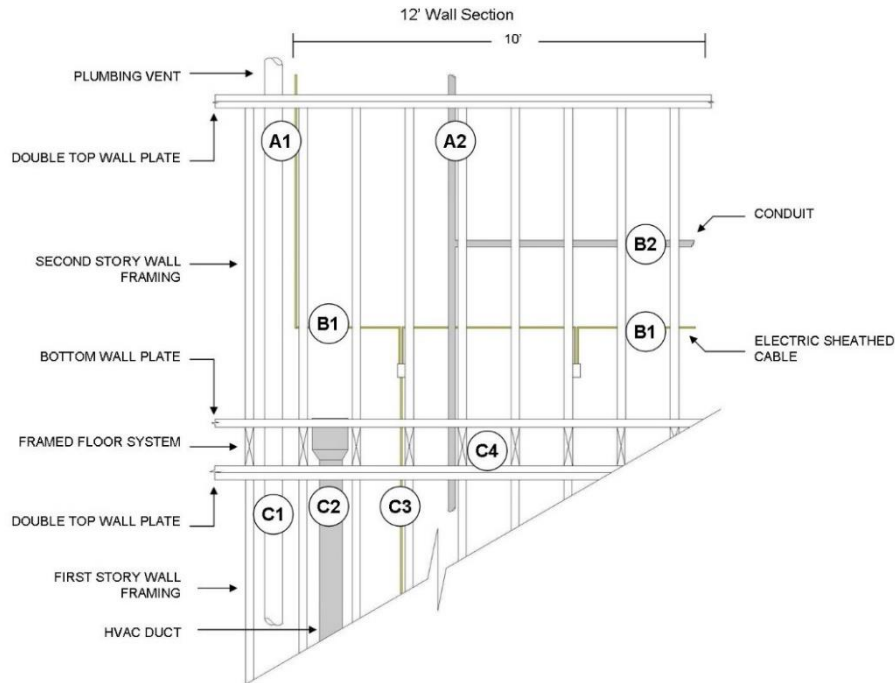
Adjust bead size with gun regulator screw. With valve end of can down, squeeze trigger to dispense foam into voids and gaps ¼" – 1" (6 mm – 25 mm) in size. Fill gaps to approximately 30% initially. Shake can regularly during use. Slight misting with water can speed cure. If necessary, cured foam can be trimmed with a knife, however, fire blocking capabilities are greatly reduced if cut. Foam will be fully cured in approximately 24 hours. It is recommended foam be protected from UV radiation by a protective covering or coating, such as paint, plaster, mortar, etc. to avoid discoloration.

Notes:

- Insufficient air, humidity, and/or substrate moisture during application may cause delayed curing or improper cell formation of the foam material. Lightly spraying the cavities with a water atomizer in dry or low humidity climates will allow the foam to cure and develop proper cell structure.
- If possible, avoid direct sunshine to the joint during application. Direct sunshine and high temperatures may cause the foam to sag and flow out of the joint during application and before curing. Cooling the can down, prior to application, may help to prevent this issue.
- If idle for more than 10 minutes, shake can 15-20 times before starting to apply foam.
- If not in use for more than 30 minutes, close gun regulator screw completely to secure trigger.

Concealed Wall Spaces Example: The wall design below summarizes the proper use and placement of LOCTITE Pro Gaps & Cracks Foam for fire blocking purposes on various penetrations identified:

DIRECTIONS



A1: PVC plumbing vent and electric sheathed cable at vertical penetration at ceiling level, through double top plate, must be sealed with fire block foam

A2: CPVC conduit at vertical penetration at ceiling level, through double top plate, must be sealed with fire block foam

B1: Electric sheathed cable at horizontal penetration through wall studs must be sealed with fire block foam at 10-foot intervals

B2: CPVC conduit at horizontal penetration through wall studs must be sealed with fire block foam at 10-foot intervals

C1: PVC plumbing vent at vertical penetration at ceiling and floor level must be sealed with fire block foam at first story wall double first top plate and second story wall bottom plate

C2: HVAC duct at vertical penetration at ceiling and floor level must be sealed with fire block foam at first story wall double first top plate and second story wall bottom plate

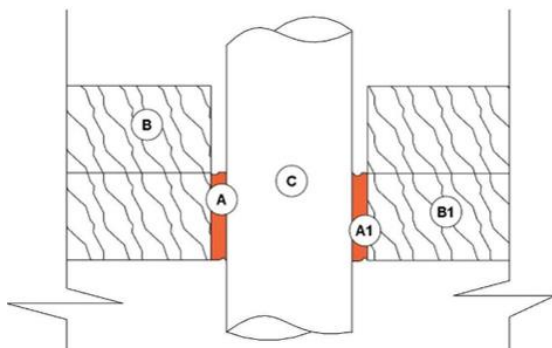
C3: Electric sheathed cable at ceiling and floor level must be sealed with fire block foam at first story wall double first top plate and second story wall bottom plate

C4: CPVC conduit at ceiling and floor level must be sealed with fire block foam at first story wall double first top plate and second story wall bottom plate

Fire block foam application details:

The fire block penetration details, below, demonstrate the minimum gap size and amount of fire block foam that must be applied to a penetration, whether vertical or horizontal.

Vertical Penetration



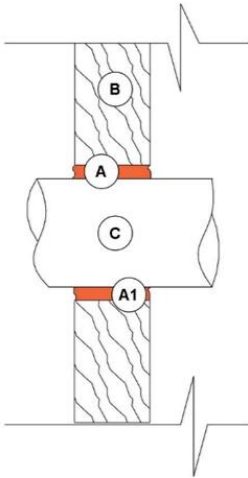
A and A1: Pro Gaps & Cracks Foam applied between gap at horizontal double top plate framing and vertical pipe. Gap between framing and penetration material must be a minimum of 1/4" (6 mm). Pro Gaps & Cracks Foam must fill gap. Do not cut expanded foam after cure.

B and B1: Horizontal double top plate wood framing

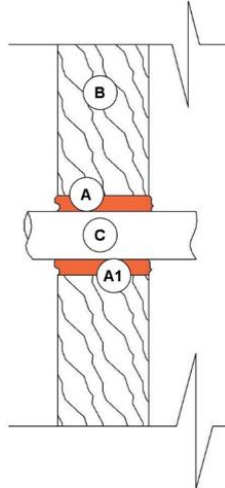
C: Vertical penetration material (pipe)

DIRECTIONS

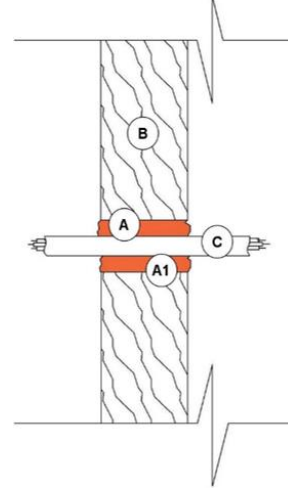
Vertical Penetration



Horizontal Penetration - Conduit



Horizontal Sheathed Cable Penetration

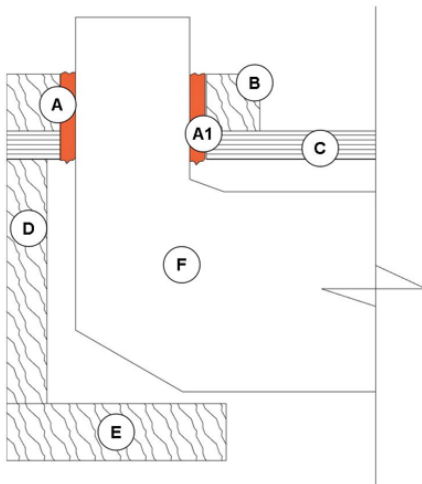


A and A1: Pro Gaps & Cracks Foam applied between gap at vertical framing and horizontal penetration material. Gap between framing and penetration material must be a minimum of ¼". Pro Gaps & Cracks Foam must fill gap. Do not cut expanded foam after cure.

B: Vertical wood framing

C: Horizontal penetration material (pipe, conduit, or sheathed cable)

Floor to Bottom Wall Plate Penetration



A and A1: Pro Gaps & Cracks Foam applied between gap at horizontal bottom wall plate framing and vertical penetration material. Gap between framing and penetration material must be a minimum of a ¼". Pro Gaps & Cracks Foam must fill gap. Do not cut expanded foam after cure.

B: Horizontal bottom wall plate framing

C: Plywood floor sheathing

D: Floor rim joist framing

E: First floor horizontal top plate

F: Vertical penetration material (duct)

Maintenance:

If Pro Gaps & Cracks Foam is damaged, the damaged section should be removed and reinstalled with a minimum ½" overlapping the adjacent material.

Clean-up:

Clean tools and uncured product residue immediately with acetone. Cured foam is not affected by solvents and is extremely difficult to remove.

STORAGE & DISPOSAL

Product must be stored vertically, not horizontally on its side.

Note: When storing foam dispensing applicators with foam cans attached, be sure to store with the can valve pointing downwards. Storing the can upright may cause propellant to leak from the foam 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 an appropriate waste receptacle. Dispose of according to federal, state, and local 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. **EXTREMELY FLAMMABLE.** Do not use near sparks, heat, or open flame. Vapors may accumulate readily and ignite explosively. Ventilate area during use and until all vapors are gone. **DO NOT SMOKE.** 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 325°F. **CONTENTS UNDER PRESSURE.** Avoid prolonged exposure to sunlight or heat from radiators, stoves, hot water, and other sources that may cause bursting. Do not puncture, incinerate, burn or store above 120°F. Do not discard empty can in garage compactor.

VAPORS AND SPRAY MIST HARMFUL. 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 limits exists. If you have breathing problems during use, leave the area and get fresh air. If symptoms 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 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. For professional use only. See SDS for more safety and health information. **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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