



TECHNICAL DATA SHEET

Revision: 03/01/2024
Supersedes: 04/08/2016
Ref. #: 232594

WINDOW & DOOR INSTALLATION FOAM

QUAD[®] FOAM

LOW EXPANSION
WON'T BOW WINDOWS

DESCRIPTION

LEPAGE[®] QUAD[®] Foam is a single component, minimal expansion, low pressure polyurethane foam designed for Window and Door installations. It is packaged in a pressurized can, with a unique adaptor that allows for both gun and straw application[†]. Use with the straw is great for small jobs that require a single can and offers improved foam structure versus traditional straw foams. For larger jobs and heavy users, gun application is recommended due to the ergonomic design of the gun, the ability to use the full can by re-sealing it for later use, and precision control to adjust the bead size. LEPAGE QUAD Foam exhibits slight to moderate expansion during application and cures upon reaction with moisture to form a flexible, urethane foam. The closed cell structure of this material provides an R factor of 5 per inch of cured foam making it an efficient method for stopping air and moisture infiltration and expensive warm and cold air loss between windows and rough frame. It will not warp or deform windows and doors. LEPAGE QUAD Foam adheres to many types of building materials including wood, concrete, and drywall and is compatible with asphalt and butyl flexible flashing.

Available As:

Item #	Package	Size	Colour	Applicator
1482482	Metal Aerosol Canister	598 g (21.1 oz.)	Pale yellow	Gun
1880791	Metal Aerosol Canister	453 g (16 fl. oz.)	Pale yellow	Gun or straw

FEATURES & BENEFITS

- Low foam pressure/low expansion – will not warp or deform windows and doors
- Convenient gun or straw application[†]
- Quick setting formulation – can be cut or trimmed in less than 1 hour*
- Cold temperature application down to -10°C (14°F)
- Insulation value of R is 4.1 to 5
- Closed cell structure
- Flexible and will not crack or dry out
- Reusable straw can be cleaned with LEPAGE Foam Gun Cleaner

RECOMMENDED FOR

LEPAGE QUAD Foam is part of the LEPAGE QUAD Window & Door System and is used to insulate and seal around windows and door frames. It can also be used for jambs, mud sills, header joints, corner joints, top plate penetrations, electrical and plumbing penetrations, and other areas where air infiltration or heat loss may occur. It bonds to most building materials including vinyl, aluminum, fiberglass, wood, OSB, PVC, concrete, and metal.

LIMITATIONS

- Not for use as a “firestop” product and should not be used in hourly fire rated assemblies that require firestop products
- Should not be used in contact with chimneys, heater vents, steam pipes, or other areas which may exceed temperatures greater than 90°C (194°F)
- For cold weather application, product should be stored above 5°C (41°F) for 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

[†] Straw use only available with 453 g (16 fl. oz.) canister





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COVERAGE

Yield per 453 g (16 oz.) / 598 g (21.1 oz) can:

- Gun – maximum of 25 L / 29 L
- Straw – maximum of 19 L

Yield for a 13mm x 13mm (½" x ½") joint:

- Gun – 154 meters (508 ft.) / 186 meters (611 ft.)
- Straw – 117 meters (386 ft.)

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 use.

TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<u>Colour:</u>	Pale yellow	<u>Application Temperature:</u>	Ambient conditions should be between -10°C (14°F) and 35°C (95°F). Can temperature should be between 5°C (41°F) and 30°C (86°F).
<u>Appearance:</u>	Minimal expansion foam	<u>Odor:</u>	Slight ether
<u>Base:</u>	Single component polyurethane	<u>Tack-Free Time:</u>	8-10 minutes* at 23°C (73°F), 50% relative humidity, and 3 cm (1") diameter bead
<u>Specific Gravity:</u>	1.107	<u>Cut Time:</u>	Gun: 25-35 minutes* Straw: approximately 70 minutes*
<u>VOC Content:</u>	15.9% by weight CARB 167 g/l SCAQMD rule 1168	<u>Cure Time:</u>	Approximately 24 hours*
<u>Shelf Life:</u>	Gun: 18 months from date of manufacture (unopened) Straw: 15 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 manufacture date 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>Colour:</u>	Pale yellow	<u>Service Temperature:</u>	-40°C (-40°F) to 90°C (194°F)
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Specifications:

- GreenGuard Certified for Children and Schools
- Tested in accordance with AAMA 504 Voluntary Laboratory
- Test Method to quantify Fenestration Installation Procedures
- Conforms to ASTM E2112 Standard Practice for Installation of Exterior Windows, Doors, and Skylights, Annex A1, Type A – Low Pressure Foam Sealant

DIRECTIONS

Tools Typically Required:

Painter's tape for protecting surfaces and utility knife
For gun application: LEPAGE Foam Gun and LEPAGE Foam Clean

Safety Precautions:

Always wear eye protection, gloves, respiratory protection, and proper work clothes when using LEPAGE QUAD Foam Gun or Straw. 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 exposure should never exceed 49°C (120°F).



DIRECTIONS

Surface Preparation:

Ensure all surfaces are clean and free from dirt, dust, oil, and other contaminants likely to impair adhesion. 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:

Read all operating instructions packaged with the dispensing unit before using. The temperature of the product must be kept above 5°C (41°F), and for best results between 20°C and 25°C (68°F and 77°F), 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 -10°C and 35°C (14°F and 95°F). Shake can vigorously before use.

Gun Application:

To become familiar with product, first test on an experimental surface. Screw applicator onto coupling unit until it will go no further. Do not over tighten. Shake can well before use (approximately 1 minute). Adjust bead size with gun regulator screw. With valve end of can down, squeeze trigger to dispense foam into joints and gaps. Fill gaps to approximately 30%. Repeat shaking regularly during application. Foam will be tack-free in 8–10 minutes* and fully cured in approximately 24 hours*. If necessary, excess cured foam can be trimmed with a sharp knife or sanded after approximately 1 hour*. Protect foam from prolonged exposure to sunlight by covering with exterior grade paint, stain, or sealant as performance of the foam will be adversely affected.

Straw Application:

To become familiar with product, first test on an experimental surface. Shake can vigorously before use (approximately 1 minute). Remove cap covering the valve. Connect the straw to the can by inserting the tab end into the hole in the can's threaded adapter and turn 90°. Slowly but firmly push the trigger into the can's valve. A slight click indicates a proper connection. **CAUTION:** Pushing too hard to connect may cause foam to dispense. Adjust bead size by applying pressure to the trigger. With valve end of can down, squeeze trigger to dispense foam into joints and gaps. Fill gaps to approximately 30%. If there are pauses longer than 5 minutes during working, the nozzle and valve should be cleaned using acetone or a foam cleaner to avoid foam hardening in the straw. Foam is tack-free in 8–10 minutes* and fully cured in approximately 24 hours*. If necessary, excess cured foam can be trimmed with a sharp knife or sanded after approximately 1 hour*. Protect foam from prolonged exposure to sunlight by covering with exterior grade paint, stain, or sealant as performance of the foam will be adversely affected. Straw can be clicked onto LEPAGE Foam Clean or cleaned by soaking in a shallow pan of acetone.

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 applying foam.
- If not in use for more than 30 minutes, close gun regulator screw completely to secure trigger.

Clean-up:

Clean tools and uncured product residue immediately with LEPAGE Foam Clean or 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 the tool 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 5°C (41°F) and 25°C (77°F). The product can be stored for a maximum of 1 week at -20°C (-4°F). Do not store below -20°C (-4°F); below this temperature product valve may spontaneously open, resulting in leakage.

Containers are under pressure. Do not expose to open flame or temperatures above 49°C (120°F). 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 provincial and local governmental regulations.



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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. CONTAINER MAY EXPLODE IF HEATED.

DANGER! Contains polyurethane prepolymer, methylenediphenyl diisocyanate, 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. **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 40°C (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.**

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.

LIMITED WARRANTY

This product is warranted by Henkel Corporation 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. For warranty assistance, contact Henkel at 1.800.624.7767 M-F 9:00 am to 4:00 pm ET.



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