

# **TECHNICAL DATA SHEET**







## DESCRIPTION

LEPAGE<sup>®</sup> QUAD<sup>®</sup> Fire Block Foam provides an effective barrier designed to impede the passage of fire, smoke, and toxic gases through service penetrations and other openings in concealed spaces. Designed for wood frame residential construction of not higher than 3 stories. This single-component fire block foam sets in 10 minutes and cures upon reaction with moisture to form a flexible, low-pressure polyurethane foam. LEPAGE QUAD Fire Block Foam can be applied in temperatures between -10°C to 35°C (14°F to 95°F) and features a closed-cell structure that will not crack or dry out. Developed for gaps that surround mechanical ductwork, plumbing, wiring, ventilation, and pipes, QUAD Fire Block Foam adheres to most types of building materials including wood, concrete, brick, metals, cable jacketing, and will not harm PVC, cPVC and PEX pipe/tubing.

## Available As:

ltem #	Package	Size	Colour
2900735	Metal Aerosol Canister	598 g (21.1 fl. oz.)	Orange

# **FEATURES & BENEFITS**

- Impedes passage of fire and smoke through penetrations
- All weather formulation can be applied between -10°C and 35°C (14°F to 95°F)
- Tested to CAN/ULC-S102 Surface Burning Characteristics of Building Materials and Assemblies
- Closed Cell Structure is flexible and will not crack or dry out
- R-Value of 5 per inch (for air-sealing purpose only)
- Orange colour identifies LEPAGE QUAD Fire Block as an approved fire block product

# **RECOMMENDED FOR**

LEPAGE QUAD Fire Block Foam is used to impede the spread of fire and smoke through concealed service. "Fire blocking" is defined as the use of approved building materials installed in concealed spaces to inhibit 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 firestop products
- Some local building codes may restrict the use of polyurethane foams as "fire blocks". Always check local building codes.
- Not approved for use as a fire block in commercial building applications or in residential construction higher than 3 stories.
- Do not cut foam. 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 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
- Certain materials such as rubbers and plastics may have bonding difficulties. Test before use.
- Flexible sheet goods



# COVERAGE

## Yield per 598 g (21.1 oz.) can:

## Approximately 29L (1.02 cu. ft.) maximum

## For a 13mm x 13mm (1/2" x 1/2") joint: 186m (611 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>	Orange		Application Temperature:	
Appearance:	Minimal expansion foam			-10°C (14°F) and 35°C (95°F). Can temperature should be between 5°C
Base:	Single component polyurethane			(41°F) and 30°C (86°F).
Specific Gravity:	1		<u>Odor:</u>	Slight ether
VOC Content:	16% by weight	CARB	<u>Gap Size:</u>	6 mm – 38 mm (¼" min – 1.5" max)
	177 g/l	SCAQMD rule 1168	Tack-Free Time:	8-10 minutes* at 23°C (73°F), 50% relative humidity, and 3 cm (1") diameter
Shelf Life:				bead
manufacture (unopened)		beneu)	<u>Cure Time:</u>	Approximately 12 – 24 hours*
Lot Code Explanation: PROD: MM/DD/YYYY or BEST BY: MM/DD/YYYY (located on bottom of cannister) MM = month of manufacture DD = day of manufacture YYYY = year of manufacture		<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.	
Example: PROD: 10/31/2018 = October 31, 2018 is the manufacture date				
Example: BEST BY: 10/31/2018 = Product performs best when used by October 31, 2018				

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

Typical Cured Performance Properties					
<u>Colour:</u>	Orange				
Service Temperature:	-40°C (-40°F) to 90°C (194°F)				
Combustible:	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.				
Core Density:	14-18 kg/m <sup>3</sup> (0.87 – 1.12 lb./ft <sup>3</sup> )				
Tested in accordance with:	ASTM E84	Surface Burning Characteristics of Building Materials and Assemblies			

ASSIFIC	Surface Burning Characteristics		UL Classified File #R25507
FILE # R25507	Flame Spread:	0	Fire Rating – CAN/ULC-S102 - Surface Burning Characteristics of Building Materials and Assemblies
	Smoke Development:	5	Tested as applied to two 12.1 mm diameter beads, 200 mm O.C. covering 5.4% of the exposed test sample area



## DIRECTIONS

## **Tools Typically Required:**

Foam Gun applicator, painter's tape, or foil for protecting surfaces.

## **Safety Precautions:**

Always wear eye protection, gloves, respiratory protection, and proper work clothes when using LEPAGE QUAD Fire Block 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 49°C (120°F).

#### 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. Screw applicator onto coupling unit until it will go no further. Do not over tighten. Shake can well before use (approximately 1 minute).

### Application:

To become familiar with product, test on an experimental surface. Adjust bead size with gun regulator screw. With valve end of can down, squeeze trigger to dispense foam into voids and gaps 6 mm to 38 mm (1/4" to 1-1/2") in size. Foam will be tack-free in 8–10 minutes\* and fully cured in approximately 24 hours.\* Protect foam from prolonged exposure to sunlight, as it will adversely affect the performance of the foam. **Do not cut cured foam**, as fire blocking capabilities are greatly reduced if cut.

#### 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.

#### **Application Requirements:**

LEPAGE QUAD Fire Block Foam must be applied in accordance with NBC and NRCC fire blocking requirements. (**NOTE:** Some local building codes may restrict the use of polyurethane foams as "fire blocks." User is responsible for checking local building codes prior to using this product).

#### Maintenance:

If Fire Block Foam is damaged, the damaged section should be removed and reinstalled with a minimum 13 mm ( $\frac{1}{2}$ ") 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 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.

LEPAGE<sup>®</sup> QUAD<sup>®</sup> Fire Block Foam Page 3 of 4



**TECHNICAL DATA SHEET** 

# 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. **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.



LePage<sup>®</sup> Brand is part of the Henkel family of brands. Founded in 1876, Henkel is a global leader in the consumer and industrial businesses. Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Beauty Care (Consumer Brands) and Adhesive Technologies.

Henkel Canada Corporation - Professional & Consumer Adhesives Headquarters - Mississauga, ON L5N 6C3 www.henkelna.com



For Technical Assistance call: 1-800-624-7767 – Mon-Fri 9:00a – 4:00p ET www.lepage.ca