



Rib & Roof

**Polyurethane
Foam sealant**



Air & Moisture Control System



- Developed for use in underground coal mines
- No special breathing apparatus required
- Covers up to 1500 sq ft at nominal 3/8" thickness
- Flame-retardant formula
- Increases safety
- Reduces cost

IMPORTANT

STORAGE: Materials may be stored below 70°F; however, temperatures of A and B materials must be brought to a minimum of 70°F prior to application. Canisters stored in low temperatures may require more than 24 hours to warm their chemical contents. Store and use in upright position. Do not pull or lift by hoses.

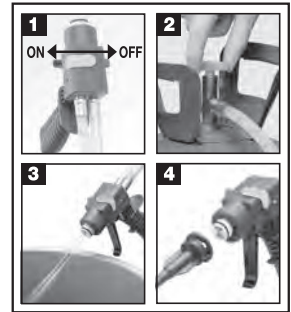
SPRAY CONDITIONS: Polyurethane foam is temperature sensitive. For optimum performance and foam quality, the temperature of the spray environment should be 70°-80°F. Application in temperatures below 70°F may increase set-up time and reduce overall performance of polyurethane foam.

INSTRUCTIONS: Read and follow all instructions and cautions, including those on carton exterior. See MSDS for instructions on handling spills. Always wear protective eyewear, gloves, hardhat and clothing.

SURFACE PREP: Surface must be free of rock dust coating, loose dirt, oil and running water. Rib & Roof polyurethane foam sealant may be sprayed over reinforcing wire or plastic mesh and brattice cloth. This makes an extremely strong, durable barrier; however, coverage may be somewhat reduced.

SET-UP: Check expiration date on carton to ensure product is current. Follow temperature guidelines in "IMPORTANT" section above. Use only in a well ventilated area.

1. Remove instructions and accessories bag from carton "A". Make sure gun is "OFF" by pushing trigger lock into gun body.
2. Attach hoses (connect red-striped hose to red "A" tank and white hose to white "B" tank, inserting hoses through holes in carton). Tighten connections with wrench provided. Open tank valves fully and tighten connections if needed.
3. Close cartons. Unlock gun and spray into waste container to ensure chemicals dispense evenly.
4. Lubricate o-ring and attach nozzle (align slots on nozzle with notch on gun barrel and push/twist nozzle clockwise to lock in place. Spray into waste container to check mix (foam should be off-white – not pure white or dark brown). See "TROUBLESHOOTING" section if needed. **Note:** in very cold spraying environments, you may carefully spray some foam inside each carton to help maintain chemical temperature. Remember to allow room for foam to expand.



APPLICATION: Polyurethane foam expands to varying degrees depending on area configuration, temperature and spray rate. Use caution when squeezing trigger to avoid splattering or applying a layer that is too thick (preferred application thickness is 3/8").

- Foam adheres to most substrates except materials like teflon, silicone and polyethylene. Foam also adheres to itself, allowing layers to build up to desired thickness.
- Place carton on a level surface. Stand 2 feet from surface and (using a back-and-forth sweeping motion) spray from top to bottom. Do not try to cover entire area in one pass; spray about 75% of surface, then allow foam to expand before applying a second layer.
- Use all contents within 30 days of initial dispensing.
- **Important:** polyurethane foam cures quickly – change to a new nozzle if the system is stopped for more than 30 seconds. Failure to do so may clog the gun, rendering it useless. Clean and lubricate o-ring when nozzle is changed.

YIELD: Yield is affected by temperature, spray technique and environmental conditions. Rib & Roof foam yields up to 1500 sq ft at nominal 3/8" thickness.

TROUBLESHOOTING: Foam is off-white when chemical mix is correct. If color changes to dark brown or pure white, a blockage (or an empty tank) is indicated. To check for blockage, remove nozzle, scrape hardened material from outlet ports on front of gun, then spray into waste container. If chemicals dispense evenly, attach a new nozzle and continue dispensing. If problem continues, shut down and call Customer Service at **1-888-DAP-TIPS**. Due to variance in spray technique and environmental conditions, some material may be left in bottom of tanks.

CAUTION: May cause skin irritation, eye damage. Heat/combustion releases hazardous decomposition products. Vapor harmful. Contents under pressure. A and B sides must be used together. Ventilate work area according to MSHA standards or wear suitable respiratory protection. Wear protective rubber gloves, coveralls, head covering, boots, face shield, hardhat and safety glasses. The foam produced is combustible. Do not expose to heat, sparks or open flames. Product is not intended for use in applications where temperatures may exceed 250°F (121°C). Product is not a fire stop. KEEP OUT OF REACH OF CHILDREN. For additional information consult the Material Safety Data Sheet.

STORAGE: Store in a clean, dry area between 60°-120°F (16°-49°C). Materials stored in low temperatures may require more than 24 hours to warm their chemical contents. Do not store in vehicles. When storing for later use, lock gun off and remove nozzle but do not purge hoses. Wipe face of gun and lubricate o-ring. Turn cylinder valves off for storage longer than 24 hours. Cylinders are of the non-refillable type and cannot be reused. **Important:** once started, spray material through entire hose set once a week to maintain operational integrity of gun/hose system.

FIRST AID: Eyes: Flush with water for 15 minutes. Skin: Remove contaminated clothing; wash skin with soap and water. Inhalation: Remove to fresh air. Ingestions: Give large quantities of liquids. Do not induce vomiting. IN ALL FIRST AID CASES, CONSULT PHYSICIAN.

DISPOSAL: Wear safety goggles and gloves. Do not puncture or incinerate tanks. Cylinders are of the non-refillable type and cannot be reused. Federal law prohibits refilling. Do not discard pressurized cylinder. Spray any leftover material into waste container until cylinder is empty and allow foam to cure before disposal. Cylinder must then be vented as follows: place cylinder upside down and carefully open valve. Allow pressure to vent for one hour. Where disposal rules require that the cylinder is punctured, knock out the safety burst plug. Chemical cylinders must be disposed of as ordinary industrial waste (sanitary landfill is recommended) in compliance with pertinent regulations. Chemical waste should be neutralized and disposed of as ordinary waste. Dispose of leftover material/containers in accordance with all Federal, state and local regulations. See MSDS for instructions on handling spills.

Touch 'n Seal® Rib & Roof polyurethane foam sealant is a unique, proprietary, non-strength enhancing, two-part expanding foam system. It provides an air/moisture barrier which, after application, isolates the coal seam from air movement that can cause scaling and general spalling of coal off the ribs & roof in underground coal mines.

This proven system ensures a brighter, safer working environment while reducing dust. Rib & Roof costs a fraction of traditional "cement" coatings - it does not require pumps, water, compressors or supplied air. Rib & Roof is maintenance-free.

- **Fast**
 - install over 1500 sq ft at 3/8" thickness per man-hour (1 man does the work of 3)
- **Long-lasting**
- **Increases underground safety**
 - Bright reflective beige
 - Safer than conventional cement shooting or spraying
 - stops spalling
 - stops air leaks in old seals and stopping ribs and roofs
 - reduces tripping hazards
- **Low cost**
 - 1/4 to 1/5 the cost of conventional systems
- **Fire retardant**
 - ASTM E-84: Flame Spread: 15, Smoke Developed: 75
 - ASTM E-162: Flame Spread Index: 4
- **One year shelf life**
- **Fully self-contained**
 - No plumbing
 - No water
 - No mixing
 - No compressor
 - No heavy equipment positioning or set-up
- **No capital investment**
- **No dusting or down time**
- **Does not disturb nearby workers**
- **Isocyanates less than 6.5 PPB**
- **No amines**

AREAS OF USE: Use Touch 'n Seal Rib & Roof polyurethane foam sealant on any rib and roof which may experience scaling and general spalling of coal in underground coal mines. It does not require any strength-enhancing properties and may also be applied to "clean areas."

- **Passageways**
- **Cross cuts**
- **Ambulance alcoves**
- **Work/maintenance areas**
- **Headwalls**
- **Underground lunch rooms**
- **Tailgates**



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In case of emergency call Chemtrec: 1-800-424-9300