



# SCHNEE-MOREHEAD, INC.

THE HOUSE THAT QUALITY BUILT®

P.O. BOX 171305, IRVING, TX 75017-1305 • (972) 438-9111 • FAX (972) 554-3939

Dear Construction Specifier:

SM7101 Permathane® is a high performance, one-component, self-leveling, polyurethane sealant produced by Schnee-Morehead, Inc., Irving, TX for a wide variety of building construction sealant applications.

- SM7101 meets or exceeds the requirements for ASTM C 920, Type S, Grade P, Class 25, Use T, A, M and O.
- To document these results, SM7101 was subjected to 3rd party testing at Architectural Testing, Inc., York, PA (ATI). They verified that SM7101 complies to the testing listed above.
- SM7101 has also been subjected to over 7000 hours of QUV testing. While other polyurethane sealants showed cracking, chalking and discoloration; the SM7101 remained in a smooth, solid, colorfast condition. The testing indicates that SM7101 will continue to perform its intended function for many years after installation.
- SM7101 is available in cartridges, sausages and pails. This provides the package variety necessary for all construction users.

Schnee-Morehead makes SM7101 to deliver an easy-gunning, smooth consistency batch-after-batch. We continue to operate under the company motto of “The House That Quality Built” ever since its founding in 1948.

SM7101 can be purchased at the distributor listed below. Please contact our distributor or Schnee-Morehead for further information.

Sincerely,

Michael P. Manegold  
Business Unit Manager  
Construction Products

Distributed by:

## Part 7 – Scope: Product and Application

This specification describes the sealing of joints and cracks with a one-component, self-leveling, elastomeric, polyurethane sealant.

### 7.01 Acceptable Manufacturers

- A. Permathane® SM7101 Self-Leveling Polyurethane Sealant manufactured by Schnee-Morehead, Inc., Irving, Texas, is considered to conform to the requirements of this specification and has performed satisfactorily for joint sealing for a minimum of five (5) years.
- B. Substitutions: The use of other than the specified product will be considered providing the contractor requests its use in writing to the Engineer. This request shall be accompanied by a certificate of compliance from an approved independent testing laboratory that the proposed substitute product meets or exceeds the specific performance criteria, tested in accordance with the specified test standards. All substitutions must be submitted to the Engineer ten (10) days prior to bid opening.

### 7.02 Performance Criteria

- A. Typical properties of the uncured polyurethane sealant:
  - 1. Initial Cure (Tack-Free Time): 4 – 6 hours
  - 2. Consistency: self-leveling
  - 3. Color: Grey
- B. Typical properties of the cured polyurethane sealant:
  - 1. Tensile Properties (ASTM D 412) at 14 days
    - a. Tensile strength: 130 psi (0.9 N/mm<sup>2</sup>)
    - b. Elongation at Break: 375%
    - c. Tensile Stress at 100% elongation: 80 psi (0.55 N/mm<sup>2</sup>)
  - 2. Hardness - Shore A (ASTM C 661): 25-35 at 21 days
  - 3. Adhesion-in-Peel (ASTM C 794)
    - a. Concrete (unprimed): 20 pli (0.89 N)
  - 4. Service Range: -40°F to 200°F (-40°C to 93.3°C)
  - 5. The sealant shall conform to Federal Specification TT-S-00230C, Type I, Class A.
  - 6. The sealant shall conform to ASTM C 920, Type S, Grade P, Class 25, use M, use O, use A, use T.
  - 7. The sealant shall be capable of ±25% movement.
  - 8. The sealant shall be non-staining and paintable.
  - 9. Final Cure: 1 to 2 days @ 77°F, 50% relative humidity, 1/4" bead.

**NOTE: Tests above, except for movement capability, were performed with material and curing conditions at 77°F and 50% relative humidity.**

### 7.03 Materials

- A. Polyurethane sealant:
  - 1. The joint sealant shall be a one-component, self-leveling, polyurethane-base material. It shall be applicable in horizontal joints. The sealant shall cure under the influence of atmospheric moisture to form an elastomeric substance.

- B. Any primers, as required, recommended by the manufacturer of the specified product, approved by the Engineer.
- C. Backer rod or bond breaker tape, as approved by the Engineer.

#### 7.04 Application

##### A. Joints:

1. Placement Procedure: Prime all substrates only as required, based upon the recommendations of the manufacturer of the specified product, when field testing indicates need or when the joints will be subjected to immersion after cure, as approved by the Engineer.
2. Install backer rod to set the depth of the sealant. Sealant depth measured at the center point of the joint width must not exceed joint width and in no case should depth be greater than  $\frac{1}{2}$  inch or less than  $\frac{1}{4}$  inch. Use bond breaker tape to prevent 3-sided adhesion in shallow joints. Approval of the backer rod or bond breaker shall be made by the engineer.
3. Joints shall be masked to prevent discoloration or application on unwanted areas, as directed by the Engineer. If masking tape is used, it shall not be removed before the sealant forms a skin. Do not apply masking tape until just prior to the sealant application.
4. Install sealant into the prepared joints. Pour or extrude the sealant into the prepared joint in one direction and allow it to flow and level as necessary. Avoid overlapping the sealant to eliminate the entrapment of air. Tool, if required, to completely fill the joint or to remove excess sealant.
5. Comply with all limitations, instructions and cautions for the polyurethane sealant as stated in the manufacturer's printed Technical Data and Material Safety Data sheets.

##### B. Cracks

1. For best performance, cracks should be cut or routed to a width that will accommodate expected movement. Install backup material to control sealant depth. Sealant depth should not be less than  $\frac{1}{4}$ " or greater than  $\frac{1}{2}$ " and should not exceed the prepared crack width. Pour or extrude the sealant into the prepared crack in one direction and allow it to flow and level as necessary. Avoid overlapping the sealant to eliminate the entrapment of air. Tool as required.
2. Comply with all limitations, instructions and cautions for the polyurethane sealant as stated in the manufacturer's printed Technical Data and Material Safety Data sheets.

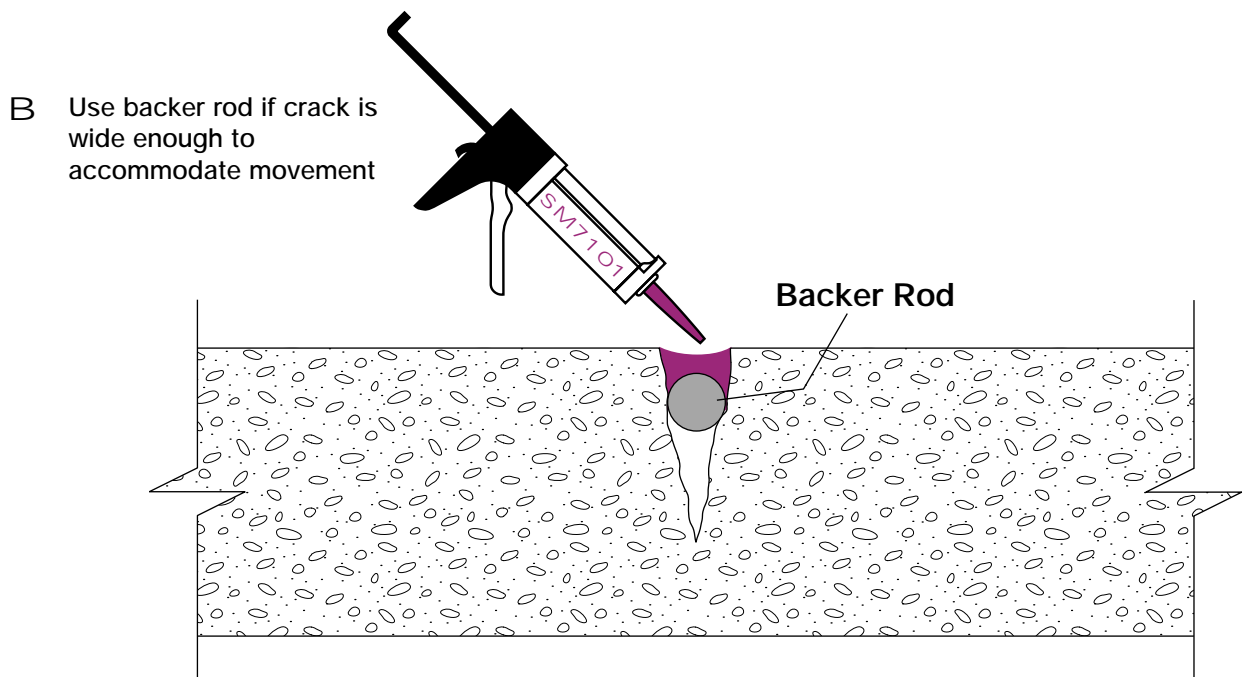
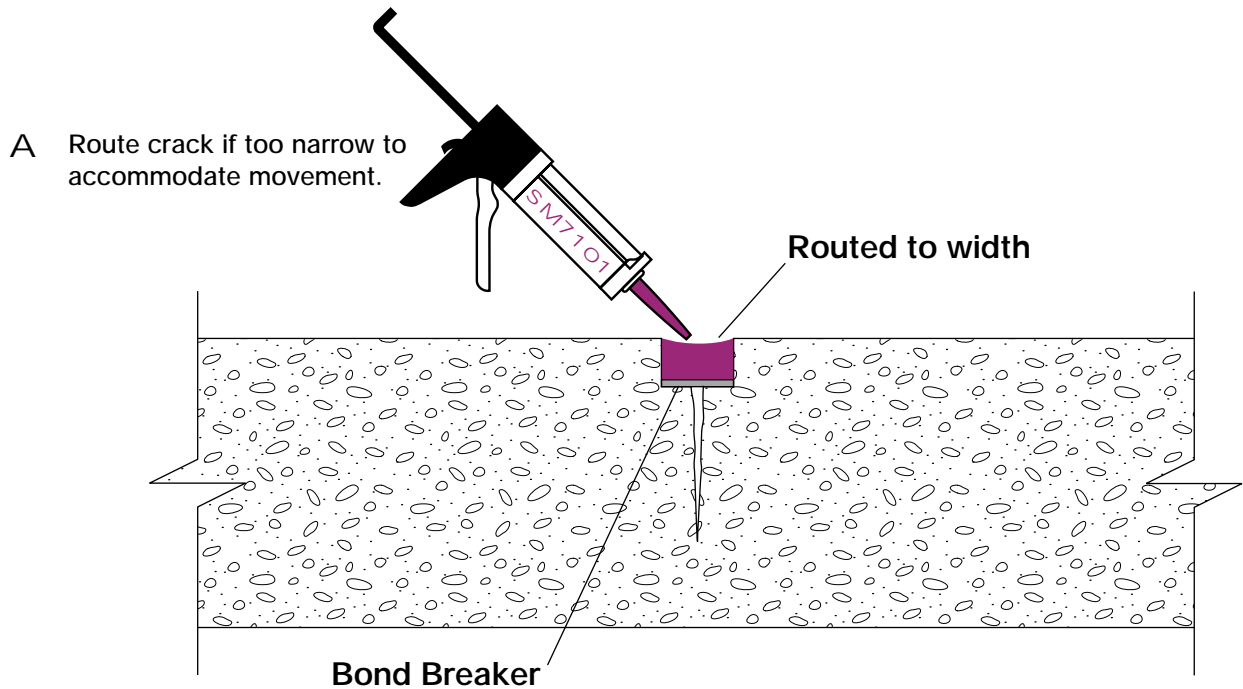
#### 7.05 Cleaning

- A. The uncured polyurethane sealant can be cleaned from tools with an approved solvent. The cured polyurethane sealant can only be removed mechanically.
- B. Leave finished work and work areas in a neat, clean condition without evidence of spillovers onto adjacent areas.

# Crack Filler

## SM7101 (Self-Leveling)

1. Gun SM7101 into prepared crack, allow to flow and level as necessary. Minimum depth 1/4", 1/2" in direct traffic areas.
2. Tool if required to completely fill crack. Avoid air entrapment.



# Expansion Joint Filler

## SM7101 (Self-Leveling)

1. Gun SM7101 into prepared joint, allow to flow and level as necessary. Minimum depth 1/4".
2. Tool if required to completely fill joint. Avoid air entrapment.

