

**GENERAL:**

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The scope of this document is to provide instruction for the installation of joint sealants in joints in concrete chases and walk tunnels ~~and sidewalk and paving expansion joints~~.

[Delete this section. Joint and crack treatments have been incorporated into the waterproofing specification.](#)

**DESIGN GUIDELINES:**

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**A. Materials**

1. Provide colors indicated or, if not otherwise indicated, as selected from manufacturer's standard colors. Select materials for compatibility with joint surfaces and other indicated exposures, and except as otherwise indicated select modulus of elasticity and hardness or grade recommended by manufacturer for each application indicated. ~~Where exposed to foot traffic, select non-tracking materials of sufficient strength and hardness to withstand stiletto heel traffic without damage or deterioration of sealer system.~~
2. Joint sealants shall be as follows:
  - 2.1. Vertical Joints: Non-sag, polyurethane sealant complying with Fed. Spec. TT-S-00230C, Type II, Class A, Sonneborn Sonolastic NP1 as manufactured by BASF Building Systems, Shakopee MN or approved equal.
  - 2.2. Horizontal Joints: One part (Fed Spec. TT-S-00230C, Type I, Class A) polyurethane sealant, pour grade, Sonneborn Sonolastic SL1 as manufactured by BASF Building Systems, Shakopee MN or approved equal.
  - 2.3. Miscellaneous sealing materials shall be as follows:
    - 2.3.1. Joint Filler: 1/2" thick polyethylene closed cell foam. Filler shall be "Ceramar" as manufactured by W. R. Meadows, Hampshire, IL, or approved equal.
    - 2.3.2. Sealant Backer Rod: Compressible rod stock of closed cell polyethylene foam, for back-up of and compatibility with sealant.

**B. Installation**

1. Joint sealers are required to establish and maintain airtight and waterproof continuous seals on a permanent basis, within recognized limitations of wear and aging.
2. Joint Preparation
  - 2.1. Clean joint surfaces immediately before installation of sealants. Remove dirt, insecure coatings, moisture, oil, form release agents and other substances which could interfere with seal of sealant.
3. Joint Size
  - 3.1. In general, depth shall not exceed one-half of the width or be less than 1/4".
  - 3.2. For joints in concrete depth can be equal to the width in joints up to 1/2" wide. Joints 1/2" to 1" wide shall have a depth of 1/2".

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- 3.3. When joint depth exceeds the above ratios, fill with back-up material to provide the proper depth when measured from the joint face.

4. Application

- 4.1. Employ only proven installation techniques, which will ensure that sealants are deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of joint bond surfaces equally on opposite sides. Except as otherwise indicated, fill sealant rabbets to a slightly concave surface, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture and dirt.
- 4.2. Install back-up material or joint filler to provide sealant depth required for a proper joint. Back-up material shall be of suitable size and shape so that it will fit into joint when compressed 25% to 50%. Sealants shall not be applied without back-up material and, if necessary, bond breaker strip. When installing back-up rod stock, roll the material into the joint to avoid stretching twisting or braiding.
- 4.3. Do not seal during damp or inclement weather, or when the ambient or surface temperature is below 40°F or higher than temperatures as recommended by sealant manufacturer.
- 4.4. Do not allow sealants to overflow from confines of joints, or to spill onto adjoining work, or to migrate into voids of exposed finishes. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage.

## REFERENCES