



SECTION 07 92 00

SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. CONTRACTOR shall furnish all labor, materials, tools, equipment, and perform all WORK and services for all sealant WORK, both exterior and interior where the words caulk, caulking, or sealant is shown on DRAWINGS or specified, in accordance with provisions of the CONTRACT DOCUMENTS, and completely coordinated with WORK of all other trades.
- B. Although such WORK is not specifically indicated, CONTRACTOR shall furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to, or necessary for, a sound, secure, and complete installation.

1.02 RELATED SECTIONS

- A. The following is a list of SPECIFICATIONS which may be related to this section:
 - 1. Section 03 31 00, Structural Concrete.
 - 2. Section 32 16 00, Sidewalks, Curbs, and Gutters.

1.03 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. ASTM International (ASTM):
 - a. ASTM C509, Standard Specification for Elastomeric Cellular Preformed Gasket and Sealing Material.
 - b. ASTM C920, Standard Specification for Elastomeric Joint Sealants.
 - c. ASTM D1056, Standard Specification for Flexible Cellular Materials - Sponge or Expanded Rubber.
 - 2. Sealant, Waterproofing and Restoration Institute (SWRI):
 - a. SWRI 2, Sealants the Professionals' Guide.
 - b. SWRI 7, Sealant Specifications.
 - 3. Federal Specification (FED):
 - a. H-08-1 SEC 07920, Sealants and Caulking.



1.04 SUBMITTALS

- A. CONTRACTOR shall submit product SPECIFICATIONS for all items pertaining to the WORK covered in this section.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Materials, equipment, and accessories specified in this section shall be products of:
1. Potable Water Containment Structures (Polyurethane Sealant): Sika; Sikaflex 1-a or Sikaflex 1-c.
 2. Fire Resistant Sealant for Buildings: General Electric; 3-6548 silicone RTV foam.
 3. Portland cement Concrete Pavements:
 - a. Dow Corning; 888 or 890.
 - b. Sika; Sikaflex, 15 LM.
 4. Portland Cement Concrete Curb, Gutter, and Sidewalk: Sika; Sikaflex 1-a or Sikaflex 1cSL.

2.02 MATERIALS

- A. Sealant:
1. Type: Provide non-sagging sealant for vertical joints. Sealants for horizontal joints may be self-leveling.
 2. Filler Compatibility: Before use of any sealant, investigate its compatibility with joint surfaces, fillers, and other materials in joint system. Provide only materials compatible with installation conditions.
 3. Color: Provide colors matching materials being sealed. Where compound is not exposed to view in finished WORK, provide manufacturer's color which has best performance.
- B. Joint Cleaner: Provide as recommended by sealant manufacturer.
- C. Joint Primer-Sealer: Provide as recommended by sealant manufacturer.
- D. Bond Breaker: Bond breaker material shall be furnished as recommended by sealant manufacturer.
- E. Sealant Backer Rod: Rod stock of polyethylene, polyethylene jacketed polyurethane foam, or other flexible, non-absorbent, non-bituminous material recommended by sealant manufacturer. The backer rod shall:
1. Control joint depth.



2. Break bond of sealant at bottom of joint.
 3. Provide proper shape of sealant bead to minimize possibility of sealant extrusion.
- F. Compressible Sealant:
1. Size compressible sealant so that width of material is twice joint width.
 2. Foamed polyurethane strip saturated with polymerized polybutylene waterproofing.
 3. Foamed polyurethane strip saturated with polymerized polybutylene waterproofing coated on front face with non-reactive release agent that will act as bond breaker for applied sealant.
 4. Apply adhesive as recommended by sealant manufacturer.

PART 3 EXECUTION

3.01 GENERAL

- A. Perform WORK in accordance with SWRI requirements for materials and installation or in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Maintain one (1) copy of each SWRI document on site.
- C. Areas to be Sealed: Seal any joints or areas which may permit penetration of moisture, unless sealing WORK is specifically required under other sections and/or as shown on the DRAWINGS. Make all joints watertight.
- D. Priming: Where required, prime joint surfaces. Limit application to surfaces to receive caulking. Mask off adjacent surfaces.

3.02 PREPARATION

- A. Surface Preparation: Clean all joint surfaces. Joint walls shall be sound, clean, dry, and free from oil, grease, and frost. Curing compound residues and any other foreign matter shall be thoroughly removed. Where required to completely clean the joint, the joint shall be mechanically cleaned by water or sand blasting.

3.03 APPLICATION

- A. Bond Breaker or Backer Rod Installation: Install bond breaker or backer rod as specified to regulate depth of sealant.
- B. Compressible Joint Sealant: Install compressible sealant in joint to depth recommended by manufacturer. Take care to avoid contamination of sides of joint. Protect sidewalls of joint (to depth of sealant) as recommended by manufacturer. Install with adhesive on two (2) faces in contact with sides of joints.
- C. Sealant:



1. Location:
 - a. One or two component polyurethane (exterior and interior use).
 - b. One or two component silicone (exterior use and interior wet area use).
 - c. Compressible Sealant (where indicated).
 - d. Epoxy Sealants (where indicated).
2. The joint shall be cleaned as recommended by sealant manufacturer.
3. The joint shall be primer-sealed as recommended by sealant manufacturer.
4. Use sufficient pressure to fill all voids and joints solid. Apply sealant when joint slot is at the mid-point of its designed expansion and construction. Install sealant with hand or power-operated caulking gun horizontally in one (1) direction and vertically from top to bottom. Avoid overlapping of sealant to eliminate entrapment of air.
5. To facilitate tooling, wet concave pointing tool with a diluted soap solution. Apply sealants when the surface and ambient temperature is forty degrees Fahrenheit (40°F) or higher and in accordance with the temperature limitations of the manufacturer.

3.04 MANUFACTURER'S FIELD SERVICES

- A. Field Services: Obtain sealing compounds only from manufacturers who shall, when required, provide services of manufacturer's field service representatives at PROJECT site for purposes of advising and instructing installers in proper procedures and precautions for use of materials. Provide such services, when required, without expense to OWNER.

3.05 CLEANING

- A. Dispose of all spillage and refuse sealant material in accordance with applicable regulations.

END OF SECTION