

SECTION 07 92 00

JOINT SEALANTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Preparing sealant substrate surfaces.
 - 2. Concrete slab control joint filler
 - 3. Sealant and backings
 - 4. Acoustical Sealants and Sound Dampening Compounds

1.2 RELATED SECTIONS

- A. Section 03 30 00: Cast-In-Place Concrete
- B. Section 04 21 13: Brick Masonry
- C. Section 04 22 00: Concrete Unit Masonry
- D. Section 06 41 16: Cabinetwork & Shelving
- E. Section 07 62 10: Gutters & Downspouts
- F. Section 07 84 00: Firestopping
- G. Section 08 11 13: Hollow Metal Doors & Frames
- H. Section 08 43 13: Aluminum Storefront and Doors
- I. Section 08 81 00: Glass & Glazing
- J. Section 09 29 00: Drywall
- K. Section 09 78 00: FRP Panels
- L. Section 32 16 00: Walks and Curbs

1.3 SUBMITTALS

- A. Comply with requirements of Section 01 33 00.

1.4 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM D1056 - Flexible Cellular Materials - Sponge or Expanded Rubber.
 - 2. ASTM C1087 - Sealant Compatibility with Glazing Materials and Accessories.
 - 3. ASTM D1565 - Flexible Cellular Materials - Vinyl Chloride Polymers and Copolymers (Open Cell Foam).
 - 4. ASTM C920 - Elastomeric Joint Sealants.

07 92 00-1

- B. Sealing and Waterproofer Institute(SWI):
 - 1. SWI - Sealant and Caulking Guide Specifications.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Do not install solvent curing sealants in enclosed building spaces.
- B. Maintain temperature and humidity recommended by sealant manufacturer during and after installation.

1.6 SEQUENCING AND SCHEDULING

- A. Coordinate work of this Section with all Sections referencing this Section.

1.7 WARRANTY

- A. The Contractor must guarantee weathertightness for a period of two (2) years from the date of Substantial Completion of the building.
- B. The Contractor will, at any time within the two (2) year period, remedy all leaks of any nature in any part of the building due to the use of faulty materials and/or workmanship under this section, without additional cost to the Owner. The Contractor shall further reimburse the Owner for any damage occasioned by such leaks.
- C. The Contractor is cautioned to supplement the work, described in this section of the specifications, by any means necessary to permit the above guarantee, which he will be called upon to make as an obligation of the Contract.
- D. Provide **Silicone sealant #4** manufacturer's twenty (20) year warranty. All other sealants to have manufacturer's minimum ten (10) year warranty provided.
- E. Butyl Rubber Sill Sealer: Provide subcontractor and manufacturers One (1) year warranty from date of substantial completion.

PART 2 PRODUCTS

2.1 SEALANT MATERIALS

- A. Polymer or Polyurethane Sealants:
 - 1. **Polyurethane Sealant #1:** ASTM C920, Type M, Grade NS, Class 25.
 - 2. ASTM C719, ASTM D412, ASTM C661, ASTM C679 and ASTM C510
 - 3. Polyurethane Sealant approved manufacturers:
 - a. MasterSeal NP-150 by BASF.
 - b. **Note: A two-part sealant with custom color availability are to be provided where sealants are installed in exterior walls and interior walls with painted finishes so that color matches each finish color. Architect to approve color all sealant color matches.**

07 92 00-2

4. **Polymer or Polyurethane Sealant #2:** ASTM C920, Type S, Grade P, Class 25.
 - a. MasterSeal SL1 or SL2 by BASF.
 - b. Sikaflex 1c SL or 2c SL by Sika
 - c. Approved alternate
 - d. Provide standard color selections. **Architect to approve color.**
 - e. Titebond “Weathermaster” , self leveling, manufactured by Franklin International.

B. Silicone Sealant:

1. **Silicone Sealant #1:** Dow Corning No. 790 Silicone building sealant or approved equal (Verify that sealant is compatible and approved by E.I.F.S. manufacturer).
2. **Silicone Sealant #2:** ASTM C920, Type S, Grade NS, Class 25, mildew resistant.
 - a. Sanitary 1702 by General Electric Silicone Products Division.
 - b. 786 by Dow Corning Corporation.
3. **Silicone Sealant #3:** Dow Corning No. 795 Silicone building sealant or approved alternate (Verify that sealant is compatible and approved by E.I.F.S. manufacturer).
4. **Silicone Sealant #4:** Dow Corning No. **756** Silicone building sealant, Dow Corning Corporation, P.O. Box 994, Midland, MI 48686-0994; (800) 248-2481; www.dowcorning.com/construction.
 - a. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant, ASTM C 920, Type S, Grade NS, Class 50, for Use NT; SWRI validation.
 - b. Type: One-component, ultra-low modulus, neutral-cure silicone rubber sealant; *Dow Corning®* 756 Silicone Building Sealant, as manufactured by Dow Corning Corporation.
5. **Note: Silicone sealants #1, #3 and #4 to have custom color availability, matching adjacent material where installed. Architect to approve color match.**
6. Acceptable Alternate Silicone Sealant Manufacturers: GE Sealants

C. Concrete Slab Control Joint Filler:

1. 2-part polyurea, Versaflex SL/85, rapid curing, manufactured by Versaflex, Inc., 87 Shawnee Avenue, Kansas City, KS 66105 (913) 321-9000.
2. 2-part polyurea, PE85, manufactured by Hi-Tech Systems, 1190 N. Del Rio Place, Ontario, CA 91764 (909)945-5530
3. Approved alternate

D. Sound Sealant:

1. At all interior sound wall applications (to comply with ASTM C334-76).
2. Approved manufacturers:
 - a. SC-177 Sound Sealant by OSI
 - b. BA 98 by Pecora
 - c. Synthetic Rubber Acoustical Sealant by Trimco

E. Sound Dampening Compound

1. Prospec “DEC1BEL Drop”, manufactured by Pinta-Acoustic, Minneapolis, MN (800)662-0032.
2. Approved alternate.

F. Provide fire rated sealant, where installed in fire rated walls. Refer to section 07 84 00.

07 92 00-3

2.2 ACCESSORIES

- A. Primer: Non-staining, clear type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Filler: Polyethylene foam rod, oversized 30% to 50%
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.
- E. Backer Seal: "Greyflex" backer seal, manufactured by Emseal Joint Systems, LTD (800) 526-8365. No substitutions will be accepted.

2.3 SEALANT COLORS

- A. Colors to be selected from manufacturer's standard color selection for each type of sealant specified with exception of two-part polyurethane sealants and silicone sealants, which are to match finishes as stated in 2.1 A & B. Architect to approve color matches.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and joint openings are ready to receive work and field measurements are as shown on Drawings and recommended by the manufacturer.
- B. Beginning of installation means installer accepts existing substrates

3.2 PREPARATION

- A. Clean and prime joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Protect elements surrounding work of this Section from damage or disfiguration.

3.3 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios.

07 92 00-4

- C. Install joint backing rods to achieve neck dimension no greater than 1/3 the joint width. For joints 1/2" to 7/8", install backer seal prior to installing backer rod material install backer seal and backer rods as required to keep a uniform depth along entire joint.
- D. Install bond breaker where joint backing is not used.
- E. Apply sealant within recommended temperature ranges. Consult manufacturer when sealant cannot be applied within recommended temperature ranges. In no case, allow the depth of sealant be less than 1/2".
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Tool joints concave.
- H. Where sound walls are indicated on drawings, install sound sealant around all penetrations, each side, under stud base plate, at intersection of wall, roof deck, and around all windows and hollow metal frames.
- I. Interior sealants are not to be installed until building is tempered by HVAC system and temperature will remain constant. **DO NOT PAINT POLYURETHANE AND SILICONE SEALANTS.** Do not install sealants in walls or floors where paint, stain, etc is scheduled to be applied until after finishes are applied unless sealants are masked off during coating process.
- J. Concrete slab control joint filler:
 - 1. Use only at concrete floors which **do not** receive any floor coverings or polished concrete finish.
 - 2. Prior to final seal coat, install joint filler flush with top of slab. Remove any excess filler.

3.4 SCHEDULE

- A. General Exterior Construction (Non-stone or masonry construction):
 - 1. Polyurethane Sealant #1
- B. Horizontal Exterior Locations:
 - 1. Polyurethane Sealant #2
- C. Masonry Exterior Locations:
 - 1. Silicone Sealant #4
- D. General Interior Construction:
 - 1. Polyurethane Sealant #1 (All wall control joints.)
- E. Plumbing Fixtures:
 - 1. Silicone Sealant #2.

07 92 00-5

F. Horizontal Interior Locations:

1. Polyurethane Sealant #2.

G. Aluminum Storefront:

1. Silicone Sealant #3

H. Concrete Slab Control Joint Filler

1. All control joints for slab-on-grade and elevated slabs where no finish or floor coverings are scheduled.

END OF SECTION

07 92 00-6