

**SECTION 07900
JOINT SEALERS**

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes:

1. Joints between dissimilar materials
2. Joints in cast-in-place and precast concrete.
3. Masonry control joints.
4. Roof flashing and counterflashing.
5. Penetrations of floors, walls and roofs.
6. Expansion joints.
7. Door, window and louver frames.

B. Related Sections:

1. Section 03300 - Cast-in-Place Concrete.
2. Section 03450 - Architectural Precast Concrete.
3. Section 04200 - Unit Masonry.
4. Section 04400 - Stone.
5. Section 07270 - Firestopping.
6. Section 07600 - Flashing and Sheet Metal.
7. Section 08100 - Metal Doors and Frames.
8. Section 08800 - Glazing.
9. Section 09200 - Lath and Plaster.
10. Section 09260 - Gypsum Board Systems.
11. Section 09300 - Tile.
12. Divisions 15 and 16.

1.2 SUBMITTALS:

A. Submit manufacturer's surface preparation and installation instructions under provisions of Section 01300.

B. LEED EQc4: Low-Emitting Materials
Provide documentation from the manufacturer identifying the VOC and chemical component limits for the materials provided.

1.3 QUALITY ASSURANCE:

A. Applicator Qualifications:

1. Application shall be done by a Joint Sealant Subcontractor with five years experience. Submit documentation to the Architect and Owner.

B. Manufacturer Technical Assistance:

1. Materials shall be supplied by manufacturer who will provide qualified technical assistance at the project site.

1.4 WARRANTY:

- A. Submit 2 copies of written 2-year warranty agreeing to repair or replace joint sealers which fail to perform as airtight and watertight joints; or fail in joint adhesion, cohesion, abrasion resistance, weather resistance, extrusion resistance, migration resistance, stain resistance, or general durability; or appear to deteriorate in any other manner not clearly specified by submitted manufacturer's data as an inherent quality of the material for the exposure indicated.
- B. Provide warranty signed by the Installer and Contractor.

PART 2 - MATERIALS

2.1 MANUFACTURERS:

- A. Tremco Manufacturing.
- B. Dow Corning.
- C. General Electric.
- D. Pecora Corporation.
- E. Mameco International.
- F. Sika Corporation.
- G. Sonneborn Building Products.

2.2 SEALANTS:

- A. One-Component Acrylic Sealant:
 1. Acrylic emulsion sealant, one-part, mildew resistant and paintable, complying with ASTM C834, recommended by manufacturer for general use as an exposed building construction sealant, Pecora AC-20 or approved substitute.
 2. LEED EQc4: Low Emitting Materials
All sealants shall meet or exceed the VOC limits of South Coast Air Quality Management District Rule #1168 and all sealants used as fillers must meet or exceed the requirements of the Bay Area Quality Management District Regulation 8, Rule 51.
- B. Interior Silicone Rubber Sealant:

1. Silicone rubber-based, one-part elastomeric sealant, complying with ASTM C920, Type S, Class 25, Grade NS.
 2. Use acid-type for non-porous joint surfaces, and non-acid type where one or both joint surfaces are porous.
 3. For wet areas use type compounded specifically for mildew resistance.
 4. Use for interior joints between equipment or counters and walls.
 5. **LEED EQc4: Low Emitting Materials**
All sealants shall meet or exceed the VOC limits of South Coast Air Quality Management District Rule #1168 and all sealants used as fillers must meet or exceed the requirements of the Bay Area Quality Management District Regulation 8, Rule 51.
- C. Two-Component Polyurethane Sealant:
1. Polyurethane-based, 2-part elastomeric sealant, complying with ASTM C920, Type M, Class 25, Grade NS (non-sag), Tremco "Dymeric", Pecora "Dynatrol II".
 2. Optional Sealant: Contractor may, at his option, provide 1-Component Silicone Sealant, "Silpruf" by General Electric or #790 by Dow-Corning in lieu of above.
 3. For exterior and interior sidewalk and floor joints, polyurethane as above except Grade P (self-leveling), Tremco "Dymeric", Pecora "Urexpan NR-200".
 4. **LEED EQc4: Low Emitting Materials**
All sealants shall meet or exceed the VOC limits of South Coast Air Quality Management District Rule #1168 and all sealants used as fillers must meet or exceed the requirements of the Bay Area Quality Management District Regulation 8, Rule 51.
- D. Backer Rod: Compressible, closed cell non-gassing type compatible with required sealant.

PART 3 - EXECUTION

3.1 INSTALLATION:

A. Joints:

1. Install sealants to depths as recommended by the sealant manufacturer but within the following general limitations, measured at the center (thin) section of the bead:
 - a. For sidewalks, pavements and similar joints sealed with elastomeric sealants and subject to traffic and other abrasion and indentation exposures, fill joints to a depth equal to 75% of joint width, but neither more than 0.625" deep nor less than 0.375" deep.

- b. For normal moving joints sealed with elastomeric sealants, but not subject to traffic, fill joints to a depth equal to 50% of joint width, but neither more than 0.5" deep nor less than 0.25" deep.
- c. For joints sealed with non-elastomeric sealants and calking compounds, fill joints to a depth in the range of 75% to 125% of joint width.

3.2 SCHEDULE OF SEALANT APPLICATION:

- A. At joints in vertical planes on exterior of building and interior face of through expansion or control joints, provide non-sag type polyurethane or silicone sealant.
- B. At joints in horizontal planes on interior and exterior of building, provide self-leveling type polyurethane sealant.
- C. At joints on interior of building, except as indicated in item A above, provide acrylic type sealant.
- D. At perimeter of plumbing fixtures, and kitchen equipment provide silicone type sealant.
- E. Set all thresholds in full bed of urethane type caulking.
- F. See drawings for typical locations.
- G. Humidity and temperature controlled computer rooms:
 - 1. All walls fully sealed to the structure top and bottom.
 - 2. Sealant around all electrical outlets, panel boxes, etc.
 - 3. Expandable foam around sides and back of all electrical outlets, panel boxes, etc.
 - 4. All openings, into computer room, into access floor space, and into space above ceiling shall be completely sealed.

APPLY CONTINUOUS SEALANTS AT THE TOP AND BOTTOM OF STUD WALLS FOR ALL EXTERIOR WALLS.

END OF SECTION 07900