

SECTION 07 92 10

JOINT SEALERS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes: Requirements for furnishing and applying joint sealers and associated materials for exterior and interior use.
- B. Related Sections:
 - 1. Section 06 20 00 – Finish Carpentry.
 - 2. Section 07 41 13 – Self-Adhered Underlayment Membrane Waterproofing.
 - 3. Section 07 62 00 – Flashing and Sheet Metal for metal flashing.

1.02 SUBMITTALS

- A. Comply with requirements of Section 01 33 00.
- B. Product Data: Submit manufacturer's descriptive literature.
 - 1. Certification: Manufacturer's certification joint sealers comply with Contract documents and are suitable for Project applications.
- C. Samples: Manufacturer's standard color range for each type of sealant to be used in an exposed location.

1.03 QUALITY ASSURANCE

- A. Test Samples: Test sealants that will come in contact with each other for compatibility, or furnish test data or manufacturers' data verifying compatibility.
- B. Select materials for compatibility with joint surfaces and indicated exposures.
- C. Installer Qualifications:
 - 1. Firm with minimum five years successful experience on projects of similar type and size, using specified products.

1.04 ENVIRONMENTAL REQUIREMENTS

- A. In order to protect the health of building occupants through preservation of good quality indoor air quality, *interior* sealants specified under this section shall have been tested and Certified for compliance under the Collaborative for High Performance Schools (CHPS) Section 01350 to meet indoor air quality requirements for Low-Emitting materials: CHPS 2009 Credit EQ2.2 – Low Emitting Materials.
- B. Sealant and caulking compounds must not be formulated or manufactured with: aromatic solvents, fibrous talc or asbestos, formaldehyde, halogenated solvents,

mercury, lead, cadmium, hexavalent chromium, barium or their compounds, except barium sulfate.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of Section 01610.

1.05 SITE CONDITIONS

- A. Do not proceed with installation of joint sealers under unfavorable weather conditions.
- B. Install sealants when temperature is in range recommended by manufacturer.

1.06 WARRANTY

- A. Comply with requirements of 01740.
- B. Repair or replace joint sealers which fail to perform as intended because of leaking, crumbling, hardening, shrinkage, bleeding, sagging, staining and loss of adhesion.
- C. Warranty Period: Five years labor and material, ten years material.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. General: Sealants that will come in contact with other sealants shall be compatible with each other.
- B. Sealants:
 - 1. At Window and Door Openings: Type A - Silicone high performance sealant: One-part non-sag low-modulus, high-elongation and compression recovery, highly adhesive, ASTM C920, Type S, Grade NS, Class 25, Use NT, G, M and O; UL Classified. "Sonneborn NP-1" or equal.
 - 2. At Exterior traffic-bearing locations: ASTM C920, Type M, Grade P, Class 25, self-leveling, multi-component polyurethane sealant, Mameco "Vulkem 245", Tremco THC-900 or equal.
 - 3. At Other Exterior Joints: Type A - Silicone high performance sealant: One-part non-sag low-modulus, high-elongation and compression recovery, highly adhesive, ASTM C920, Type S, Grade NS, Class 25, Use NT, G, M and O; UL Classified. "Sonneborn NP-1" or equal.
 - 4. Building Interior, Low-emitting: Interior sealants shall not contain: mercury, butyl rubber, neoprene, SBR (styrene butadiene rubber), or nitrile. Provide ASTM C920, single-component, gun-grade, high performance sealant: Use NT, Type S, Grade NS, Class 25, US Fed Specification TT-S-00230, Type 2, Class A; Bostik-Findley "Chem-Calk 2000" or equal.

5. Sanitary Sealant, Low-emitting (at wet locations): Single-component, primerless, flexible, mildew-resistant, silicone rubber sealant; ASTM C920, Types, Grade NS, Class 25, Usent, A&M. Dow Corning "Tub Tile and Ceramic Silicone Sealant (33g/L)," or equal.
 6. Acoustical Sealant, Low-emitting, non-flammable, latex-based sealant specially designed to reduce sound transmissions in wall systems where a sound-rated assembly is required: OSI® Greenseries Draft & Acoustical Sound Sealant (22g/L) or equal.
 7. Glazing Sealant: Specified in Section 08800.
- C. Provide Polyurethane sealants for plywood joint treatment on roofs.
- D. Sealant Colors: For sealants which will be used in exposed locations, color will be selected by the Architect from manufacturer's standard range; sealants for use in concealed locations may be any of manufacturer's standard colors.
- E. Sealant Backup: Non-staining, closed-cell foam compatible with sealant to be used; of size and shape to control depth of sealant and to allow manufacturer recommended compression upon insertion.
- F. Miscellaneous Materials:
1. Joint Cleaner for Metal and Glass: Type recommended by manufacturer of sealant to be used.
 2. Primer: Type recommended by manufacturer of sealant to be used.
 3. Masking Tape: Pressure-sensitive, adhesive paper tape.
 4. Bond Breaker: Pressure-sensitive, adhesive polyethylene tape.
 5. Sealant Backer Rod: Compressible closed cell polyethylene foam rod or other flexible, permanent, durable nonabsorptive material as recommended by joint sealer manufacturer for compatibility with joint sealer. Oversize the backer rod a minimum 30% to 50% of joint opening.
 6. Compressible Tape at Acoustic Assemblies: Closed-cell neoprene tape with adhesive back, Norton V-730" Pemko "Weatherstrip Tape," or approved equal, of width and thickness required for the conditions of the installation.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces to receive joint sealants are clean, dry, and free of grease, oil, and other materials that could prevent proper adhesion of sealants.
- B. Verify that other conditions are satisfactory for the application of joint sealants. If unsatisfactory conditions exist, do not begin installation until such conditions have been corrected.

3.02 PREPARATION

- A. Clean joints, using recommended cleaner.
- B. Mask surfaces adjacent to exposed joints.

- C. Apply primer, if recommended by sealant manufacturer.
- D. If new or existing joints as indicated are not suitable, clean out to depth as indicated or as required by sealant manufacturer; grind to minimum 1/4-inch width without damaging adjacent surfaces. Do not grind metal.

3.03 APPLICATION

- A. Apply joint sealants in accordance with the manufacturer's printed instructions.
- B. Provide sealants at areas of new work wherever necessary to prevent light leakage and moisture leakage; at exposed joints around plumbing fixtures, door and window frames, and other locations required to aid cleaning and sanitation, whether or not specifically indicated or specified.
- C. Install sealant backup using blunt instrument; avoid twisting. Install so that joint depth is 50 percent of joint width, but not less than 1/4-inch deep.
- D. Apply gun-grade sealants using pressure gun with nozzle sized to fit joint width; apply in continuous, uniform beads, without gaps and air pockets.
- E. Tool joints within ten minutes of sealant application. Around countertops and backsplashes, locations where water could pool, tool joints flat, not concave. Remove masking materials immediately after tooling.
- F. Seal joints adjacent to surfaces to be painted prior to application of final coat of paint.

3.04 CLEANING

- A. Remove excess and spilled sealants adjacent to joints without damaging adjacent surfaces.

END OF SECTION -- 07 92 10