

SECTION 07 92 00

JOINT SEALANTS

PART 1 GENERAL

- 1.1 Preconstruction Joint-Sealant-Substrate Tests: Submit substrate materials, representative of actual joint surfaces, to joint sealant manufacturer for laboratory testing of joint sealants for adhesion to primed and unprimed substrates and for compatibility with joint substrates and other joint-related materials.
- 1.2 Submittals: In addition to Product Data, submit the following:
 - 1. Samples of each type and color of joint sealant required.
 - 2. Test reports for joint sealants evidencing compliance with requirements.

PART 2 PRODUCTS

- 2.1 Elastomeric Sealant Manufacturers: Subject to compliance with requirements, provide sealants by one of the following:
 - 1. Polysulfide Sealants:
 - a. W.R. Meadows, Inc.
 - b. Morton International, Inc.
 - c. Pecora Corporation.
 - d. Polymeric Systems, Inc.
 - e. Sonneborn Building Products Div., ChemRex Inc.
 - 2. Silicone Sealants:
 - a. Bostik Inc.
 - b. Dow Corning.
 - c. GE Silicones.
 - d. NUCO Industries, Inc.
 - e. Ohio Sealants, Inc.
 - f. Pecora Corporation.
 - g. Polymeric Systems, Inc.
 - h. Sonneborn Building Products Div., ChemRex Inc.
 - i. Tremco.
 - 3. Urethane Sealants:
 - a. Bostik Inc.
 - b. Mameco International.
 - c. W.R. Meadows, Inc.
 - d. Pacific Polymers, Inc.
 - e. Pecora Corporation.
 - f. Polymeric Systems, Inc.
 - g. Sika Corporation.

- h. Sonneborn Building Products Div., ChemRex Inc.
- i. Tremco.

- 2.2 Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by testing and field experience.
- 2.3 Colors: Provide colors indicated for exposed joint sealants or, if not indicated, as selected by Architect from manufacturer's full range for this characteristic.
- 2.4 Elastomeric Sealant Standard: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant of base polymer specified below:
 - 1. Multicomponent Nonsag Polysulfide Sealant: Type M, Grade NS, Class 25, and as follows:
 - a. Uses T, M, G, A, and O.
 - b. Uses NT, M, G, A, and O.
 - c. Uses T, NT, M, G, A, and O.
 - 2. Multicomponent Pourable Polysulfide Sealant: Type M, Grade P, Class 25, and as follows:
 - a. Uses T, M, G, A, and O.
 - b. Uses NT, M, G, A, and O.
 - c. Uses T, NT, M, G, A, and O.
 - 3. Single-Component Nonsag Polysulfide Sealant: Type S; Grade NS; Class 25; Uses NT, M, G, A, and O.
 - 4. Low-Modulus Neutral-Curing Silicone Sealant: Type S, Grade NS, Class 25, and as follows:
 - a. Uses NT, M, G, A, and O.
 - b. Uses NT, G, A, and O.
 - c. Uses NT, G, and A.
 - d. Additional capability, when tested per ASTM C 719, to withstand the following percentage changes in joint width and still comply with other requirements of ASTM C 920:
 - 1) 50 percent movement in both extension and compression for a total of 100 percent movement.
 - 2) 100 percent movement in extension and 50 percent movement in compression for a total of 150 percent movement.
 - 5. Medium-Modulus Neutral-Curing Silicone Sealant: Type S; Grade NS; Class 25; with the additional capability, when tested per ASTM C 719, to withstand 50 percent movement in both extension and compression for a total of 100 percent movement and still comply with other requirements of ASTM C 920; and as follows:
 - a. Uses NT, G, A, and O.
 - b. Uses NT, M, G, A, and O.

6. High-Modulus Neutral-Curing Silicone Sealant: Type S; Grade NS; Class 25; and as follows:
 - a. Uses NT, G, A, and O.
 - b. Uses NT, M, G, A, and O.
7. Acid-Curing Silicone Sealant: Type S; Grade NS; Class 25; Uses NT, G, A, and O.
8. Mildew-Resistant Silicone Sealant: Type S; Grade NS; Class 25; Uses NT, G, A, and O; formulated with fungicide; intended for sealing interior joints with nonporous substrates exposed to high humidity and temperature extremes.
9. Pourable Silicone Sealant: Type M or S, and Grade P; Class 25; Uses T, NT, M, G, A, and O; with the additional capability, when tested per ASTM C 719, to withstand 100 percent movement in extension and 25 percent movement in compression for a total of 125 percent movement and still comply with other requirements of ASTM C 920.
10. Multicomponent Nonsag Urethane Sealant: Type M, Grade NS, Class 25, and as follows:
 - a. Uses NT, M, G, A, and O.
 - b. Uses NT, M, A, and O.
 - c. Uses T, NT, M, G, A, and O.
 - d. Uses T, NT, M, A, and O.
 - e. Uses T, M, A, and O.
11. Multicomponent Pourable Urethane Sealant: Type M, Grade P, Class 25, and as follows:
 - a. Uses T, M, G, A, and O.
 - b. Uses T, M, A, and O.
12. Single-Component Nonsag Urethane Sealant: Type S; Grade NS; and as follows:
 - a. Class 12-1/2.
 - b. Class 25.
 - c. Uses NT, M, G, A, and O.
 - d. Uses NT, M, A, and O.
13. Single-Component Pourable Urethane Sealant: Type S, Grade P, Class 25, and as follows:
 - a. Uses T, M, G, A, and O.
 - b. Uses T, M, A, and O.
- 2.5 Acrylic-Based Solvent-Release Sealant: ASTM C 1311.
- 2.6 Acrylic-Based Solvent-Release Sealant: FS TT-S-00230.
- 2.7 Butyl-Rubber-Based Solvent-Release Joint Sealant: ASTM C 1085.
- 2.8 Latex Sealant: ASTM C 834.
- 2.9 Acoustical Sealant for Exposed and Concealed Joints: Nonsag, paintable, nonstaining latex sealant complying with ASTM C 834.

- 2.10 Acoustical Sealant for Concealed Joints: Nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce airborne sound transmission.
- 2.11 Preformed Silicone-Sealant System: Manufacturer's standard system consisting of precured low-modulus silicone extrusion, in sizes to fit joint widths indicated, combined with a neutral-curing silicone sealant for bonding extrusions to substrates.
- 2.12 Preformed Foam Sealant: Manufacturer's standard preformed, precompressed, impregnated, open-cell foam sealant manufactured from high-density urethane foam impregnated with a nondrying, water-repellent agent; in precompressed sizes and in roll or stick form to fit joint widths indicated, and as follows:
 - 1. Impregnating Agent: Manufacturer's standard.
 - 2. Impregnating Agent: Latex-modified asphalt.
 - 3. Impregnating Agent: Chemically stabilized acrylic.
 - 4. Impregnating Agent: Neoprene rubber suspended in water-based emulsion.
 - 5. Density: Manufacturer's standard.
 - 6. Density: 5 to 6 lb/cu. ft. (80 to 96 kg/cu. m).
 - 7. Density: 8.4 to 9.1 lb/cu. ft. (135 to 145 kg/cu. m).
 - 8. Density: 8 to 10 cu. ft. (128 to 160 kg/cu. m).
 - 9. Density: 9 to 10 lb/cu. ft. (144 to 160 kg/cu. m).
 - 10. Density: 10 lb/cu. ft. (160 kg/cu. m).
 - 11. Backing: Pressure-sensitive adhesive, factory applied to one side with protective wrapping.
- 2.13 Sealant Backings, General: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- 2.14 Cylindrical Sealant Backings: ASTM C 1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
 - 1. Type C: Closed-cell material with a surface skin.
 - 2. Type O: Open-cell material.
 - 3. Type B: Bicellular material with a surface skin.
 - 4. Type: Any material indicated above.
- 2.15 Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 deg F (minus 32 deg C).
- 2.16 Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint.
- 2.17 Primer: As recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated.

PART 3 EXECUTION

- 3.1 General: Comply with joint sealant manufacturer's instructions for products and applications indicated.
- 3.2 Sealant Installation Standard: Comply with ASTM C 1193.
- 3.3 Acoustical Sealant Application Standard: Comply with ASTM C 919 for use of joint sealants in acoustical applications.

END OF SECTION 07 92 00