

**SECTION 07 92 00
JOINT SEALANTS**

PART 1 GENERAL

1.1 STIPULATIONS

- A. The specifications sections "General Conditions to the Construction Contract", "Special Conditions" and "Division 01 - General Requirements" form a part of this Section by this reference thereto, and shall have the same force and effect as if printed herewith in full.

1.2 SECTION INCLUDES

- A. Self-leveling pourable joint sealants.
- B. Joint backings and accessories.

1.3 RELATED REQUIREMENTS

- A. Section 09 21 16 - Gypsum Board Assemblies: Sealing acoustical and sound-rated walls and ceilings.
- B. Section 09 30 00 - Tiling: Sealant between tile and plumbing fixtures and at junctions with other materials and changes in plane.

1.4 REFERENCE STANDARDS

- A. ASTM C1193 - Standard Guide for Use of Joint Sealants 2016.
- B. SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2017).

1.5 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturer's technical datasheets for each product to be used; include the following:
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
 - 4. Substrates the product should not be used on.
 - 5. Substrates for which use of primer is required.
 - 6. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
- C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

- D. Executed warranty.

1.6 WARRANTY

- A. Manufacturer Warranty: Provide 2-year manufacturer warranty for installed sealants and accessories that fail to achieve a watertight seal, exhibit loss of adhesion or cohesion, or do not cure. Complete forms in Client Agency's name and register with manufacturer.
- B. Extended Correction Period: Correct defective work within 2-year period commencing on Date of Substantial Completion.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
 - 1. Bostik Inc: www.bostik-us.com/#sle.
 - 2. Dow Chemical Company: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.
 - 3. Hilti, Inc: www.us.hilti.com/#sle.
 - 4. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.
 - 5. Substitutions: See Section 01 25 00 - Substitution Procedures.
- B. Self-Leveling Sealants:
 - 1. Bostik Inc: www.bostik-us.com/#sle.
 - 2. Dow Chemical Company: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.
 - 3. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.
 - 4. Substitutions: See Section 01 25 00 - Substitution Procedures.

2.2 JOINT SEALANT APPLICATIONS

- A. Scope:
 - 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to:
 - a. Wall expansion and control joints.
 - b. Joints between door, window, and other frames and adjacent construction.
 - c. Joints between different exposed materials.
 - d. Openings below ledge angles in masonry.

e. Other joints indicated below.

2. Do not seal the following types of joints:

- a. Intentional weep holes in masonry.
- b. Joints indicated to be treated with manufactured expansion joint cover, or some other type of sealing device.
- c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
- d. Joints where installation of sealant is specified in another section.
- e. Joints between suspended panel ceilings/grid and walls.

B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.

2.3 JOINT SEALANTS - GENERAL

- A. Acrylic Latex plus silicone sealing compounds: Conforming to ASTM with silicone ASTM C834-76.
- B. Polyurethane Foam: Conforming to ASTM-84.
- C. Elastomeric Sealants (including polysulfide, polyurethane and silicone): Conforming to ASTM C-920-87.
- D. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.
- E. Colors: As indicated on drawings or as approved by Architect.

2.4 CLOSED CELL LATEX FOAM SEALANT FOR USE AT WINDOWS AND DOORS

- A. Non-expanding Closed Cell Low Pressure Flexible Latex Window and Door sealant, manufactured by DOW Great Stuff Pro or equal.

2.5 CLOSED CELL ONE PART FOAM SEALANT

- A. One part expanding Polyurethane Foam Sealant, penetration sealing foam. Gaps up to 3"; Great Stuff Pro Gaps & Cracks (fireblock) manufactured by The Dow Chemical Company or approved equal.

2.6 POLYURETHANE FOAM SEALANT FOR USE DURING COLD WEATHER INSTALLATION

- A. In cold weather conditions where temperatures are less than 55°F during installation time, use All Seasons Polyurethane Foam Sealant as manufactured by Touch 'n Seal (www.touch-n-seal.com).

2.7 ACOUSTIC SEALANT

- A. Acrylic Latex plus silicone compound for use in reducing acoustic transmission through partition systems: Conforming to ASTM C834, ASTM E814, ASTM E90 and ASTM E-84. USG Sheetrock Acoustical Sealant or equal.

2.8 COMPRESSION SEALS

- A. Preformed Foam Sealant: Manufacturer's standard preformed, precompressed, impregnated open-cell foam sealant manufactured from high-density urethane foam impregnated with a nondrying, water repellant agent; factory-produced in precompressed sizes and in roll or stick form to fit joint widths indicated and to develop a watertight and airtight seal when compressed to the degree specified by the manufacturer. Provide products which are permanently elastic, mildew-resistant, non-migratory, nonstaining, compatible with joint substrates and other joint sealers, and comply with the following requirements:
 - 1. Impregnating agent: Manufacturer's standard.
 - 2. Density: Manufacturer's standard.
 - 3. Backing: Pressure sensitive adhesive, factory applied to one side, with protective wrapping or coated on one face with release agent serving as bond breaker for primary joint sealant.
- B. Preformed Hollow Neoprene Gasket: Manufacturer's standard preformed polychloroprene elastomeric joint seal of the open-cell compression type complying with ASTM D 2628 and with requirements indicated for size, profile and cross-section design.

2.9 SELF-LEVELING JOINT SEALANTS

- A. Flexible Polyurethane Foam: Single-component, gun grade, and low-expanding.
 - 1. Color: White.
 - 2. Products:
 - a. Adfast USA Inc; Adfoam Flex 1865: www.adfastcorp.com/#sle.
 - b. DAP Products Inc; DRAFTSTOP 812 Foam: www.dapspecline.com/#sle.
 - c. Tremco Commercial Sealants & Waterproofing; ExoAir LEF: www.tremcosealants.com/#sle.
 - d. Substitutions: See Section 01 25 00 - Substitution Procedures.

2.10 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Joint Cleaner: Noncorrosive and nonstaining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- D. Primers: Type recommended by sealant manufacturer to suit application; nonstaining.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

3.2 INSTALLATION

- A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Provide joint sealant installations complying with ASTM C1193.
- C. Install bond breaker backing tape where backer rod cannot be used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- G. Joints at windows and doors: Spray non-expanding foam into gaps and cracks around window and door frames. Trim flush with framing.
- H. Acoustical Sealant:
 - 1. Preparation: Joints and surfaces shall be clean, dry, and free of loose materials.
 - 2. Installation: Seal both sides of top and bottom plates prior to installing gypsum board. Seal perimeter of electrical boxes and plumbing penetrations after gypsum board is installed.

3.3 SCHEDULE OF REQUIRED INSTALLATION LOCATIONS:

- A. Concrete Slab:
 - 1. Control Joints.
 - 2. Construction Joints.
 - 3. Penetrations.
 - 4. Joints at masonry walls.
 - 5. All cracks and joints in the slab.
- B. Framing:

1. Between King and Jack studs of windows.
2. Perimeter of headers.
3. Between double studs.
4. Between double plates
5. Top Plate Penetrations.
6. Ceiling Penetrations.
7. Chimney penetrations.
8. Any space in sill seal insulation that is not continuous.
9. Acoustic caulking at both sides of bottom plates at unit separation walls.
10. Non-Expanding foam seal around window and door frames
11. Foam seal between shaftliner and structural framing at exterior boundary (use fire rated foam)

C. Plumbing:

1. Plumbing penetrations through gypsum board.
2. Plumbing penetrations through top and bottom plates
3. Exterior hose bibs.
4. Plumbing stacks.
5. Shower drains.
6. At toilets and flooring- leave a gap at rear.
7. Tops, sides, and base of showers.

D. Electrical:

1. Electrical entrances.
2. Wiring penetrations through top and bottom plates.
3. Recessed lighting fixtures.
4. Electrical box knockouts in interior and exterior walls.
5. Telephone entrances.
6. Cable television wire entrances.
7. All electrical box penetrations through gypsum board.

E. Mechanical:

1. Duct or piping penetrations through top and bottom plates
2. Around wall and window mounted AC unit sleeves.
3. Exhaust vents.
4. HVAC duct penetrations through gypsum board.
5. At Mechanical unit platforms and floor.

F. Gypsum Board:

1. At all penetrations, gaps and voids so that the gypsum board provides a continuously sealed wall and ceiling envelope.

G. Finish Trim:

1. Between exterior door trim and wall.
2. Exterior door sills.
3. Interior door sills.
4. Between window sill and wall.
5. Between window trim and wall.
6. Between window edge and frame.
7. At wood base and resilient flooring.
8. At Cabinet bases.
9. Where water may wick into untreated wood or particleboard edges such as between resilient flooring and a wood box platform for mechanical equipment.

H. Appliances:

1. Dryer vents.
2. Dryer electrical, vent or gas connections.
3. Washer plumbing or electrical connections.

I. Exterior:

1. Exterior door sills.
2. Exterior utility penetrations.
3. Exterior vent penetrations.
4. Exterior window and brick returns.

J. Miscellaneous:

1. At any place required for fireblocking.

2. At any place required for a clean finish installation.

END OF SECTION