

ARCHITECTURE

SECTION 07920

JOINT SEALANTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Sealant and Backing Materials including primers, backer rods, bond breakers and accessories
Provide sealant at all interior and exterior joints including exposed and concealed joints as listed below: around louvers, doors, frames, windows, entrances and other wall openings. Control and expansion joints in concrete and paving. Seal joints in toilet areas and bathrooms, and other joints where shown.
- B. Work shall include providing sealant at intersection of construction components within and exterior to building, to be installed by one single source subcontractor unless noted otherwise or approved in writing by the Architect.

1.2. Qualifications

- A. Work of this trade must be done by an installer who is certified, in writing, by the manufacturer of the products to be used. Submit copy of certification.
- B. This installer shall coordinate with all other related work on this project to determine the required sequencing of the work.
- C. Warranty: Manufacturer shall provide a 10 year product warranty.
- D. Applicator warranty: 1 year workmanship warranty.

1.3 Scope of Work:

Provide sealant at all interior and exterior joints including exposed and concealed joints as listed below: around louvers, doors, frames, windows, entrances and other wall openings. Control and expansion joints in concrete and paving. Seal joints in toilet areas and bathrooms, and other joints where shown

- A. This Section includes joint sealants generally including, but not limited to, the following:
Exterior locations included but not limited to:
 - 1. Expansion joints
 - 2. Door and window frames and adjacent construction
 - 3. Under thresholds
 - 4. Construction joints
 - 5. Refrigerant, HVAC, plumbing, sprinkler, electrical, and other Div. 15 and 16 items lines entering building
 - 6. Wall and soffit joints
 - 7. Metal to concrete
 - 8. Junction between vertical and horizontal surfaces
 - 9. Joints in coping caps and exposed roof flashing
 - 10. Penetrations between A/C sleeves and adjacent construction
 - 11. Control and expansion joints in cast-in-place concrete.
 - 12. Control and expansion joints in unit masonry.
 - 13. Joints between metal panels.
 - 14. Joints between different materials.
 - 15. Other joints as indicated.
 - 16. Joints below covered traffic surfaces that are part of a building and not those in roads, sidewalks, and parking lots.
 - 17. Control, expansion, and isolation joints in cast-in-place concrete slabs.

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18. Perimeter joints between materials listed above and frames of doors, windows, louvers, HVAC penetrations.

B. Interior locations included but not limited to:

1. Perimeter joints between interior wall surfaces and frames of interior doors, windows, and elevator entrances and adjacent construction.
2. Under thresholds except marble.
3. Construction joints
4. Door bucks not flush with thresholds
5. Control and expansion joints on exposed interior surfaces of exterior walls.
6. Perimeter joints of exterior openings where indicated.
7. Tile control and expansion joints.
8. Vertical control joints on exposed surfaces of interior unit masonry and concrete walls and partitions.
9. Joints between plumbing fixtures and adjoining walls, floors, and counters.
10. Edge of all vinyl wall covering installations at junctions with other materials, including ceiling joint.
11. Bottom edge of mirror channels.
12. Control and expansion joints in tile flooring.
13. Joints at countertops, vanities.
14. Door bucks not flush with thresholds.
15. Lavatories, water closets, and other plumbing fixtures.
16. Joints of mirrors.
17. Control and expansion joints in cast-in-place concrete slabs.
18. Isolation and contraction joints in cast-in-place concrete slabs including saw cut joints in slabs on grade.
19. Joints between different materials listed above.

C. Interior joints in the following vertical surfaces and horizontal non-traffic surfaces:

1. Control and expansion joints on exposed interior surfaces of exterior walls.
2. Perimeter joints of exterior openings at windows and doors and where indicated.
3. Tile control and expansion joints.
4. Vertical joints on exposed surfaces of interior unit masonry, concrete, walls, and partitions.
5. Perimeter joints between interior wall surfaces and frames of interior doors and windows.
6. Joints between plumbing fixtures and adjoining walls, floors, and counters.

D. Interior joints in the following horizontal traffic surfaces:

1. Isolation, control and expansion joints in cast-in-place concrete slabs.
2. Control and expansion joints in stone, brick, and tile flooring.

E. Sanitary:

1. Tubs, lavatory tops, water closets
2. Joints at mirrors located in wet areas
3. Joints between ceramic tile and wall.

- F. See other sections for sealing to be performed as part of the work of that section and not specified herein.

1.4. Related Sections include the following

1. Division 8 Section "Glazing" for glazing sealants.
2. Division 9 Section "Gypsum Board Assemblies" for sealing perimeter joints of gypsum board partitions to reduce sound transmission.

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1.5. Submittals: Product Data and color Samples

1.6. PROJECT CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

PART 2 - PRODUCTS

2.1 General:

- A. Colors: Match sealant material to colors of adjacent materials, as approved by Architect, unless indicated otherwise on Interior Finish Index and Exterior Finish Index. Provide samples for Architect and Owner approval.
- B. Elastomeric Sealant Standard: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant, including those referencing ASTM C 920 classifications for type, grade, class, and uses.
- C. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be non-staining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

2.2 Sealants: Provide products specified below or comparable products from one of the following manufacturers:

1. Tremco, Inc.
 2. Pecora Corp.
 3. Sonneborn Bldg. Products Div., ChemRex Inc.
 4. GE Silicones
 5. Dow Corning Corp
- A. Interior Sealant joints not subject to movement:
1. Interior Sealant:
 - a. "Chem-Calk 600" - Bostik Construction Products, Huntington Valley, PA .
 - b. "AC-20" - Pecora Corporation, Harleysville, PA (215-723-6051).
 - c. "Acrylic Latex" - Tremco, Cleveland, OH (216-292-5000)
 2. One part, non-sag, acrylic latex meeting the requirements of ASTM C834 with 10 year life expectancy.
 3. Colors: Match sealant material to colors of adjacent materials. manufacturer's standard colors.
- B. Exterior Joints:
1. Exterior joints:
 - a. Pecora 864 Silicone - Pecora, Inc.
 - b. Tremco – Spectrum 1
 - c. Dow Corning 795

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2. One part non-sag, Silicone type, meeting the requirements of ASTM C920 with 20 year life expectancy.
 3. Colors: Match sealant material to colors of adjacent materials. manufacturer's standard colors.
- C. Sanitary sealant, interior use
1. One component silicone rubber sealant, complying with ASTM C920, Type S, Grade NS, Class 25, and FS-S-001543, Class A. Provide acid cure, nonporous bond type, mildew resistant silicone rubber sealant where both joint faces are metal, glass, plastic, tile, or other non-porous material.
 - a. Tremco
 - b. Dow 8640 by Dow Corning
 - c. GE 1702 by General Electric Silicones
 - d. Tremsil 200 Omni-Plus by Sonneborn
 2. Colors: Clear or to match adjacent surfaces.
- 2.3 Back-Up Materials
- A. Bond Breaker Tape:
 1. "470 or 481 polyethylene" - 3M Adhesives, Coatings and Sealers Div., St. Paul, MN.
 - B. Joint Backer Rod: Closed cell polyethylene size to produce 25 percent minimum compression in joint. **Open cell or "soft rod" (open cell foam with a closed cell skin) type products will not be permitted.**
 1. "Sonolastic" by Degussa
 2. "Greenrod" by Elgene Chemical
 3. Closed cell rod recommended by sealant manufacturer, and approved by Architect.

PART 3 - EXECUTION

3.1 Installation

- A. Install appropriate sealant at all perimeter joints of frames (window, curtain wall, window wall, door, louver, fixtures, etc.) except as otherwise indicated.
- B. All interior and exterior joints required to be sealed for movement, water tightness, weather tightness and/or appearance.
- C. Primer: Cure primer according to manufacturer's recommendations prior to applying sealant.
- D. Backing Materials: Install in continuous lengths as long as practical.
- E. Sealant: Install in accordance with manufacturer's written instructions and the requirements of ASTM C962.

3.2 Cleaning

- A. Clean adjoining surfaces to eliminate evidence of overflow, spillage or migration of sealant.

END OF SECTION