

**SECTION 07 90 0  
JOINT SEALANTS**

**PART 1.00 - GENERAL**

**1.01 REFERENCE STANDARDS**

- A. ASTM C834 - Standard Specification for Latex Sealants; 2017 (Reapproved 2023).
- B. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications; 2024.
- C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.

**1.02 RELATED DOCUMENTS**

- A. The Contractor is referred to the "Bid Book"; the Standard Agreement" between the Construction Manager (CM) and the Contractor(s); "Division 01 - General Requirements" of the Contract Specifications"; the "Contract Drawings" and all Amendments and Addenda thereto; all of which govern the Work of this Section.

**1.02 SCOPE OF WORK**

- A. The Work of this Section includes all labor, materials, equipment and services necessary to complete the joint sealant application in renovated/reconfigured apartments as indicated on the Drawings and/or specified herein including, but not limited to, the following:
  - 1. Interior Sealants Between Existing/New Dissimilar Materials:
    - a. Bathrooms: Joints between existing bathtubs/reinstalled water closets (by Plumbing/Heating Contractor – P/H Add Alternate #1) and ceramic floor/base tile (allowance for bidding purposes: 100 Bathrooms – included in G.C. Add Alternate #1).
    - b. Toilets: Joints between reinstalled water closets (by Plumbing/Heating Contractor) and ceramic floor tile
    - c. Bathrooms/Toilets: Joints between slip-on door frames and existing/new ceramic base tile/marble saddles.
    - d. Kitchens: Joints between countertop splashboards/end cabinets and adjacent existing/new walls.
    - e. Kitchens: Joints between sinks and countertops.
    - f. New Hollow Metal Door Frames: Joints between frames and adjacent existing/new construction.
    - g. New Wallboard Partitions (Within Apartments): Joints between wallboard and adjacent existing/new construction
    - h. New Demising Partitions/Chase Walls (Between Apartments) Joints between wallboard and adjacent exiting/new construction, including floors.
      - 1) All other interior joints between dissimilar materials required to be sealed to provide a positive seal against penetration of moisture, air, etc. as required.
      - 2) Provide all other labor and materials as may be reasonably inferred to make the Work of this Section complete.

**2.02 1.03 RELATED WORK SPECIFIED ELSEWHERE**

- A. A. The following additional Sections/Divisions contain requirements that relate to the Work of this Section:
  - 1. Section 08100 – Metal Door Frames
  - 2. Section 09210 – Lath / Plaster
  - 3. Section 09250 – Gypsum Wallboard System
  - 4. Section 09310 – Ceramic Tile
  - 5. Section 12356 – Kitchen Cabinets / Countertops
  - 6. Division 22 – Plumbing / Heating

### **2.03 SUBMITTALS**

### **2.04 THE FOLLOWING SHOP DRAWINGS, CATALOG CUTS, MATERIAL SAMPLES AND OTHER DATA PERTAINING TO THE WORK OF THIS SECTION SHALL BE SUBMITTED IN ACCORDANCE WITH DIVISION 01 – GENERAL REQUIREMENTS, SECTION 01000.1.7 SUBMITTALS:**

- 1) Manufacturer's Catalog Cuts: For each item specified.
- 2) Color Charts: For each type of sealant specified.

### **1.05 QUALITY ASSURANCE**

- A. Qualification of Installers: Use only qualified personnel who are thoroughly familiar, skilled and specially trained in the techniques of sealant work, and who are completely familiar with the published recommendations of the sealant manufacturer.

### **3.02 ENVIRONMENTAL CONDITIONS**

- A. Temperature: Install all work of this Section in accordance with manufacturer's air temperature range recommendations.
- B. Moisture: Do not apply work of this Section on surfaces which are damp or wet.

### **3.03 TESTING**

- A. Perform testing as required to determine if sealants or primers will stain adjacent surfaces. Notify the CM of any negative test results prior to proceeding with sealant work.

### **3.04 DELIVERY / STORAGE / HANDLING**

- A. Delivery: All sealant materials shall be delivered to the site in original sealed containers with original labels attached clearly indicating manufacturer's name, brand and other identifying information.
- B. Protection: Use all means necessary to protect sealant materials before, during and after application and to protect the installed work and materials of all other trades.
- C. Storage
  1. Store sealant materials and equipment under conditions recommended by the manufacturer.
  2. Do not use sealants stored for a period of time exceeding the maximum recommended shelf life of the material.

### **3.05 GUARANTEES**

- A. Provide separate guarantees from the manufacturer and the applicator stating that the applied sealants shall remain watertight for a period of one (1) year.
- B. Guarantees shall further state that installed sealant is guaranteed against:
  1. Adhesive or cohesive failure of sealant joints.
  2. Cracking greater than three (3) mils in depth developing on surface of material.
  3. Staining of surfaces adjacent to joints by sealants or primer by migration through building materials in contact with them.
  4. Chalking or visible color change on surface of cured sealant.
- C. Guarantees shall include provision to repair and/or replace, at Contractor's expense, sealant defects which develop during guarantee period, because of faulty labor and/or materials.

## **PART 2.00 - PRODUCTS**

### **4.01 MATERIALS**

- A. Sealants
  - 1) Type #1: Silicone Sealant – Sanitary, mildew/mold-resistant, permanently flexible, neutral-curing with very low odor, non-sag, non-staining, one-part, silicone-base compound intended for interior use in high-moisture/humidity environments such as bathrooms. Sealant shall conform to ASTM C920, Class

50, TT-S-001543A, TT-S-00230C, Class A and shall be Pecora 898 as manufactured by Pecora Corp. or approved equal.

- 2) Type #2: Acrylic Latex Sealant – Non-sag with silicone additive for greater adhesion, non-staining, compatible with latex/oil based paints, one-part, acrylic latex caulking compound intended for general purpose applications. Sealant shall conform to ASTM C834 and shall be AC-20 + Silicone as manufactured by Pecora Corp, or approved equal.
- 3) Type #3: Acoustical Sealant – Water-based, highly-elastic with silicone additive for greater adhesion, non-staining, compatible with latex/oil based paints, one-part, acrylic latex compound intended for sealing sound leaks around partition perimeters, electrical boxes, etc. Sealant shall conform to ASTM C919 and shall be Pecora AIS-919 (non-sag, gun grade) as manufactured by Pecora Corp., Sheetrock Brand Acoustical Sealant as manufactured by United States Gypsum Corp. or approved equal.
- 4) Additional Acceptable Manufacturers: The following additional manufacturers can provide sealants subject to compliance with specified requirements as approved by the Authority:

B. Tremco Inc.

C. Dow Corning Corp.

D. DAP Inc

- 1) 5. Colors: Colors of sealants shall be as selected by the Authority.

## **B. RELATED MATERIALS:**

**1. BACKER RODS: PROVIDE BACKER RODS AT LOCATIONS WHERE REQUIRED AS RECOMMENDED BY THE SEALANT MANUFACTURER TO CONTROL THE DEPTH OF THE SEALANT AND ALLOW IT TO BE APPLIED UNDER PRESSURE. BACKER RODS SHALL BE NON-ABSORBENT, NON-STAINING, RESILIENT, COMPATIBLE WITH THE SEALANT AND PRIMER, IF APPLICABLE, AND SHALL BE APPROX. 25% WIDER THAN THE JOINT WIDTH. BACKER RODS SHALL BE FLEXIBLE, ROUND, FABRICATED OPEN-CELL POLYURETHANE OR RETICULATED (SOFT) POLYETHYLENE AS RECOMMENDED BY THE SEALANT MANUFACTURER. FOR PECORA SEALANTS, BACKER RODS SHALL BE DENVER FOAM AS MANUFACTURED BY BACKER ROD MFG. INC.**

**2. PRIMERS: PROVIDE PRIMERS AT LOCATIONS WHERE REQUIRED AS RECOMMENDED BY THE SEALANT MANUFACTURER. PRIMERS SHALL BE COMPATIBLE WITH AND AS RECOMMENDED BY THE SEALANT/BACKER ROD MANUFACTURERS. FOR PECORA SEALANTS, PRIMERS SHALL BE P-75, P-120 OR P-150 AS MANUFACTURED BY PECORA CORP.**

1. 3. Provide solvents, cleaning agents and other accessory materials where required as recommended by the sealant manufacturer.

## **PART 3.00 - EXECUTION**

### **8.01 INSPECTION**

- A. Examine the locations and conditions of work prepared by others where joint sealants are to be applied and notify the CM of any conditions detrimental to the proper and timely completion of the work of this Section. Do not proceed with the sealant installation until unsatisfactory conditions are corrected to permit proper installation of the work. Commencement of sealant installation will be construed as complete acceptance of preparatory work by others.

### **8.02 PREPARATION**

- A. Joints and spaces to receive sealant shall be thoroughly cleaned of all foreign matter, including dust, dirt, oil, grease, loose mortar, etc., which could adversely affect adhesion of sealants. Any previously applied film must be entirely removed to permit sealant to be applied directly to the base surface.
- B. Non-porous materials such as metal shall be cleaned with chemical treatments that will not damage the surfaces in any way. Protective coatings on metallic surfaces shall be removed

with an appropriate solvent that leaves no residue and is compatible with sealant. Solvent shall be applied and wiped dry with clean, lint-free paper towels. Solvent shall not be allowed to air-dry without wiping. Clean joint areas protected with masking tape or strippable films as specified above after removal of tape film.

- C. Joints to receive sealant shall be thoroughly dry before application.
- D. Joints to receive sealants shall be of proper width and depth to receive sealant and backer rods, where applicable, as indicated on the Drawings and as required.

### 3.03 APPLICATION

- A. The Contractor shall employ only skilled and experienced workers for installation of sealant and related materials.
- B. Primer: Where required, apply primer of type recommended by sealant manufacturer to sides of joints immediately prior to application of sealant. Priming shall be done with a brush or other approved means that will completely wet both inner faces of joints to be filled with sealant. Care shall be taken not to apply primer to surfaces of construction adjacent to joints receiving primer and sealant. Such adjacent surfaces shall be protected with non-staining masking tape or other approved means prior to priming.
- C. Backer Rods: At locations where depth of joints exceeds required depth of sealant ( $\frac{1}{4}$ " to  $\frac{1}{2}$ " as recommended by the manufacturer), install backer rods in joints (after primer, if any, has dried) to provide backing for sealant. Proper shape for sealant shall be a very slight "hourglass" contour, with back and front face having a very slight concave curvature. Special blunt "T"-shaped tool or roller shall be used to install joint backing to the proper and uniform depth required for the sealant. Backer rods shall be installed with approx. 25% compression. Joint backing shall be butted at intersections and shall not be stretched, twisted, braided, punctured or torn during installation. Backer rods may be omitted at joints less than  $\frac{1}{8}$ " wide and shall not project beyond the specified depth of the open space in any joint. Installation of joint backing shall be as recommended by the sealant manufacturer.
- D. Sealants:
  - 1. Surfaces adjacent to joints to receive sealant shall be protected as required with non-staining masking tape. Sealant shall be applied under pressure in accordance with the manufacturer's application manual and manufacturer's instructions using hand or power actuated caulking guns with nozzles of proper size, or other appropriate means. Sealant shall be forced into joints in front of the tip of the caulking gun, not pulled after it, with sufficient pressure to completely fill joints and eliminate all air pockets and voids. Sealant shall be forced against sides of joints to make uniform contact and prevent pulling of sealant off of sides.
  - 2. Exposed joints shall be neatly tooled to form a slightly concave surface contour. Finished joints shall be straight, uniform and smooth. Any protective masking tape shall be removed immediately after completion of tooling and before sealant face starts to "skin" over. Neatly remove any excess sealant from and without damaging adjacent surfaces of joint, leaving the work in a clean, neat condition.
  - 3. Replace sealant or related materials which are improperly installed or damaged during the construction process at no additional cost to the Authority.

### 9.02 SEALANT SCHEDULE

- A. Joint sealants shall be applied between existing/new dissimilar materials at the following interior/exterior locations (for descriptions of Sealant Types #1-4 listed below, see Paragraph 2.01.A):

#### LOCATION SEALANT TYPE

##### BATHROOMS/TOILETS:

- 1. Joints between base of reinstalled water closets #1 and ceramic floor tile.
- 2. Joints between existing bathtubs and adjacent #1 ceramic floor/base tile.
  - a. Joints between slip-on metal door frames and #1

- b. adjacent existing/new ceramic base tile and
- c. marble saddles.
- 3. Kitchens:
- 4. Joints (1/4" max.) between top/sides of countertop #1 splashboards and adjacent walls.
- 5. Joints (1/4" max.) between end cabinets and #1 adjacent walls, where exposed.
- 6. Joints between perimeter of kitchen sinks and #1 adjacent countertops.
- 7. New Hollow Metal Door Frames:
- 8. Joints between perimeter of frames, including #2 spacers, and adjacent walls, metal partition
- 9. ends, columns, etc.
- 10. New Wallboard Partitions/Chase Walls/Furring (Within
- 11. Apartments):

**1. JOINTS BETWEEN PERIMETER OF WALLBOARD AND #2  
ADJACENT WALLS/CEILINGS.**

- 1. New Demising Partitions/Chase Walls (Between Apartments):
- 2. Joints between perimeter of wallboard (both sides #3 of partitions/chase walls) and adjacent walls, floors,
- 3. ceiling slabs, etc.

**3.05 CLEANING / PROTECTION**

- A. Upon completion of the Work of this Section, all unused materials, containers, equipment, etc. shall be removed from the site. All floors, walls and other adjacent surfaces that are stained or damaged by the Work shall be repaired or restored at no additional cost to the Authority. All Work and adjacent surfaces shall be left in a clean and undamaged condition acceptable to the CM.

**END OF SECTION 07 90 0**