

## **SECTION 079200 JOINT SEALANTS**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

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

#### **1.02 REFERENCE STANDARDS**

- A ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer 2015 (Reapproved 2022).
- B ASTM C834 - Standard Specification for Latex Sealants 2017.
- C ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.
- D ASTM C1193 - Standard Guide for Use of Joint Sealants 2016.
- E ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants 2022.
- F ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants 2018.
- G SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2022).

#### **1.03 SUBMITTALS**

- A 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.
  - 7. Sample product warranty.
  - 8. Certification by manufacturer indicating that product complies with specification requirements.
- B Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended 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.

#### **1.04 QUALITY ASSURANCE**

- A Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

- B Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

### **1.05 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 Owner's name and register with manufacturer.

## **PART 2 PRODUCTS**

### **2.01 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.
  2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
    - a. Joints between door, window, and other frames and adjacent construction.
  3. 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.
- B Exterior Joints: Use nonsag nonstaining silicone sealant, unless otherwise indicated.
- C Interior Joints: Use nonsag acrylic emulsion latex sealant, unless otherwise indicated.

### **2.02 JOINT SEALANTS - GENERAL**

- A Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.

### **2.03 NONSAG JOINT SEALANTS**

- A Nonstaining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 50 percent, minimum.
  2. Nonstaining to Porous Stone: Nonstaining to light-colored natural stone when tested in accordance with ASTM C1248.
  3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
  4. Hardness Range: 15 to 35, Shore A, when tested in accordance with ASTM C661.
  5. Color: To be selected by Architect from manufacturer's full range.
  6. Cure Type: Single-component, neutral moisture curing.

7. Service Temperature Range: Minus 20 to 180 degrees F.
8. Products:
  - a. Pecora Corporation: [www.pecora.com/#sle](http://www.pecora.com/#sle).
  - b. Sika Corporation: [www.usa.sika.com/#sle](http://www.usa.sika.com/#sle).
  - c. Tremco Commercial Sealants & Waterproofing:  
[www.tremcosealants.com/#sle](http://www.tremcosealants.com/#sle).
  - d. Or Approved Equal.
- B Acrylic Emulsion Latex: Water-based; ASTM C834, single component, nonstaining, nonbleeding, nonsagging; not intended for exterior use.
  1. Color: To be selected by Architect from manufacturer's full range.
  2. Grade: ASTM C834; Grade 0 Degrees F (Minus 18 Degrees C).
  3. Products:
    - a. Pecora Corporation: [www.pecora.com/#sle](http://www.pecora.com/#sle).
    - b. Sherwin-Williams Company: [www.sherwin-williams.com/#sle](http://www.sherwin-williams.com/#sle).
    - c. Tremco Commercial Sealants & Waterproofing:  
[www.tremcosealants.com/#sle](http://www.tremcosealants.com/#sle).
    - d. Or Approved Equal.

#### **2.04 SELF-LEVELING JOINT SEALANTS**

- A Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; multicomponent; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion .
  1. Movement Capability: Plus and minus 50 percent, minimum.
  2. Hardness Range: 35 to 55, Shore A, when tested in accordance with ASTM C661.
  3. Color: To be selected by Architect from manufacturer's full range.
  4. Service Temperature Range: Minus 40 to 180 degrees F.
  5. Products:
    - a. Pecora Corporation: [www.pecora.com/#sle](http://www.pecora.com/#sle).
    - b. Sherwin-Williams Company: [www.sherwin-williams.com/#sle](http://www.sherwin-williams.com/#sle).
    - c. Sika Corporation: [www.usa.sika.com/#sle](http://www.usa.sika.com/#sle).
    - d. Or Approved Equal.

#### **2.05 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.
  1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O - Open Cell Polyurethane.
  2. Type for Joints Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type B - Bi-Cellular Polyethylene.
  3. Open Cell: 40 to 50 percent larger in diameter than joint width.
  4. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.
- 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 Masking Tape: Self-adhesive, nonabsorbent, nonstaining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- D Joint Cleaner: Noncorrosive and nonstaining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- E Primers: Type recommended by sealant manufacturer to suit application; nonstaining.

## **PART 3 EXECUTION**

### **3.01 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.

### **3.02 PREPARATION**

- A Remove loose materials and foreign matter that could impair adhesion of sealant.
- B Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

### **3.03 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 Measure joint dimensions and size joint backers to achieve the following, unless otherwise indicated:
  - 1. Width/depth ratio of 2:1.
  - 2. Neck dimension no greater than 1/3 of the joint width.
  - 3. Surface bond area on each side not less than 75 percent of joint width.
- D Install bond breaker backing tape where backer rod cannot be used.
- E Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- F 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.
- G Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

**END OF SECTION**