

## SECTION 07900 - CAULKING AND SEALANTS

### PART 1 - GENERAL

#### 1.1 WORK SPECIFIED HEREIN

- A. All labor, materials, equipment and services necessary to furnish all sealants and related materials and perform all caulking as indicated or specified.

#### 1.2 SUBSTITUTIONS

- A. In accordance with Section 01600.

#### 1.3 SUBMITTALS

- A. Submit samples in accordance with Section 01330 for all work under this Section. Submit samples of all materials specified herein, in quantity directed for approval. Sealant samples shall be color proposed for use.
- B. Caulk a section of joint (at all job conditions requiring caulking) at least seven (7) days prior to start of caulking for review by the Architect. When approved, this sample shall be used as a standard of comparison for the remainder of the work.

#### 1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver sealant to the job site in sealed containers, each bearing manufacturer's name and product designation.

#### 1.5 JOB CONDITIONS

- A. Do not apply sealants in temperatures or to material below 40°F.
- B. Caulk joints before final coat of paint or before application of any clear or stain waterproofing compounds.
- C. Do not apply sealants to surfaces that are wet.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Sealant shall be single component polyurethane base sealant, in colors selected. Sealants shall conform to ASTM C920 as follows:

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Traffic Joints	Type S, Grade P, Class 25, Use T
Horizontal Joints	Same as Traffic Joints
Other Joints	Type S, Grade NS, Class 25, Use NT, M, A, O

- B. All sealants used on exterior of project are to be (single) component (polyurethane) base, including inside surface of exterior joints.
- C. All sealants used on interior of project are to be (single) component (acrylic latex) base.
- D. Primer: Where required, shall be used as recommended, in writing, by the manufacturer. The primer shall have been tested for non-staining characteristics and durability on samples of actual surfaces to be sealed.
- E. Back-up materials and preformed joint fillers shall be non-staining, compatible with sealant and primer, and of a resilient nature, such as closed cell polyethylene rod, closed cell urethane or Neoprene rod, or elastomeric tubing or rod (Neoprene, butyl, or EPDM). Materials impregnated with oil, bitumen or similar materials shall not be used. Size and shape shall be as indicated by joint details on Drawings and shall be as recommended by sealant manufacturer in writing. Sealant shall not adhere to back-up material.
- F. Bond Breakers: Where required, shall be polyethylene tape (or equal) as recommended by manufacturer of sealant, in writing.
- G. Solvents, cleaning agents and other accessory materials shall be as recommended by sealant manufacturer in writing.

**PART 3 - EXECUTION**

**3.1 WORKMANSHIP**

- A. General:
  - 1. Qualified applicators shall apply sealants in conformance with manufacturer's written directions.
  - 2. Examine all surfaces and report all conditions not acceptable.
  - 3. Apply sealant under pressure with hand or power actuated gun or other appropriate means. Gun shall have nozzle of proper size and provide sufficient pressure to completely fill joints as designed.
  - 4. All joint surfaces shall be tooled to provide the contour as indicated.

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B. Preparation:

1. Thoroughly clean all joints, removing all foreign matter such as dust, oil, grease, water, surface dirt and frost. Sealant must be applied to the base surface. Previously applied paint or primer must be entirely removed.
2. Porous materials such as concrete or masonry shall be cleaned where necessary by grinding, blast-cleaning, mechanical abrading, acid washing or combination of these methods to provide a clean, sound base surface for sealant adhesion.
3. Laitance shall be removed by acid washing, grinding or mechanical abrading.
4. Form oils shall be removed by blast-cleaning.
5. Loose particles present or resulting from grinding, abrading or blast-cleaning shall be removed by blowing out joints with oil-free compressed air (or vacuuming) prior to application of primer or sealant.
6. Non-porous surface, such as metal and glass, shall be cleaned either mechanically or chemically. Protective coating on metallic surfaces shall be removed by a solvent that leaves no residue. Solvent shall be used with clean cloths or lintless paper towels. Do not allow solvent to air dry without wiping. Wipe dry with clean, dry cloth or lintless paper towels.
7. Joint areas to be protected with masking tape or strippable films shall be cleaned before application of tape or film.
8. All joints to receive sealant shall be as indicated on shop or project drawings. Do not seal joints until they are in compliance with drawings; or meet with the approval of the Architect.
9. For joints in metal, glass and other non-porous surfaces: sealant depth shall be a minimum of 1/2 the applied sealant width, and shall in no case exceed the applied sealant width.
10. Joints to receive sealant, back-up material or pre-formed joint filler shall be cleaned out, raked to full width and depth as required.
11. Joints shall be of sufficient width and depth to accommodate specified back-up material or preformed joint filler and sealant.

C. Application:

1. Install back-up material or joint filler, of type and size specified, at proper depth to provide sealant dimensions as detailed. Back-up material shall be of suitable size and shape; and compressed 25-50% to fit joints as required. Sealant shall not be applied without back-up material and/or bond breaker strip. When using back-up tube avoid

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lengthwise stretching. Tube or rod shall not be twisted or braided.

2. Apply masking tape, where required, in continuous strips in alignment with joint edge.
3. Prime surfaces, where required, with primer as recommended by sealant manufacturer.
4. Follow sealant manufacturer's instructions regarding mixing (if required), surface preparation, priming, application life, and application procedure.
5. Apply, tool and finish sealant as required. When tooling sealants, use tooling solution recommended by sealant manufacturer. Remove masking tape immediately after joints have been tooled.
6. Clean adjacent surfaces of sealant as work progresses. Use solvent or cleaning agent as recommended by sealant manufacturer.
7. All finished work shall be left in a neat, clean condition.

#### PART 4 - SCHEDULE

##### 4.1 GENERAL

- A. Provide caulking at the following locations. This schedule is not to be construed to be complete. Provide caulking at other areas as indicated.
- B. Control joints in masonry surfaces, interior and exterior.
- C. Control joints in concrete surfaces, interior and exterior.
- D. Perimeter of door frames, interior and exterior.
- E. Perimeter of window frames, interior and exterior.
- F. Perimeter of louvers and grilles, interior and exterior.
- G. Perimeter of aluminum sections, interior and exterior.

Note: At interior partitions caulking is required at all joints between dissimilar materials where the joint width exceeds 1/16".

END OF SECTION 07900

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