

SECTION 07900JOINT SEALERSPART 1 - GENERAL1.1 SECTION INCLUDES

- A. Preparing sealant substrate surfaces.
- B. Sealant and backing.

1.2 RELATED SECTIONS

- A. Section 01340 - Submittals
- B. Section 01710 - Project Cleaning
- C. Section 03300 - Cast-in-Place Concrete
- D. Section 04200 - Unit Masonry
- E. Section 07150 - Damproofing
- F. Section 07270 - Fire Stopping
- G. Section 08110 - Steel Doors and Frames
- H. Section 08710 - Finish Hardware
- I. Section 08800 - Glass and Glazing

1.3 REFERENCES

- A. ASTM C790 - Recommended Practices for Use of Latex Sealing Compounds.
- B. ASTM C920 - Specification for Elastomeric Joint Sealant
- C. ASTM C834 - Specification for Latex Sealing Compounds
- D. FS-TT-S-227 - Sealing Compound: Elastomeric Type, Multi-Component
- E. FS-TT-S-230 - Sealing Compound: Elastomeric Type, Single Component
- F. FS-TT-S-001543 - Sealing Compound: Silicone Rubber Base
- G. Sealing and Waterproofers Institute - Sealant and Caulking Guide Specification

1.4 SUBMITTALS

- A. Submit product data under provisions of Section 01340.
- B. Submit color charts or samples.
- C. Submit manufacturer's installation instructions.

1.5 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum ten years experience.
- B. Applicator Qualifications: Company specializing in applying the work of this Section with minimum five years experience.
- C. Compatibility: Verify sealants used are compatible with joint substrates.
- D. Joint Tolerance: Compliance with the manufacturer's limitation is required.
- E. Conform to Sealant and Waterproofers Institute requirements for installation.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

- B. VOC Standards - All sealants shall be in accordance with all applicable State and Federal VOC standards.

1.7 SEQUENCING AND SCHEDULING

- A. Coordinate work in this Section with related sections.

1.8 WARRANTY

- A. Installer to provide five year warranty to include coverage of installed sealants, caulking and accessories which fail to achieve air tight and watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. C-1, Acrylic Latex Sealant: Single component, non-staining, non-bleeding, non-sagging; color as selected by Engineer; as manufactured by Pecora Sealants or equal.

Durability (Bond and Cohesion) +/- 7½ percent - 12½ percent
Service Temperature Range 0 to 180 degrees F
Shore "A" Hardness Range 15 to 40

- B. S-1, Epoxidized Polyurethane Sealant: Multi-component, chemical curing, non-staining, non-bleeding, non-sagging type; color as selected by Engineer; as manufactured by Tremco or equal.

Durability (Bond and Cohesion) - 25 percent + 40 percent
Shore "A" Hardness Range 25

- C. S-2, Polyurethane Sealant: Multi-component, chemical curing, non-staining, non-bleeding, non-sagging type; color as selected by Engineer; Sikaflex 2C as manufactured by Sika Corporation or equal.

Durability (Bond and Cohesion) +/- 50 percent
Service Temperature Range - 40 to 170 degrees F
Shore "A" Hardness Range 25 (40 for self leveling)

- D. S-3, Silicone Sealant: Single component, fungus resistant, chemical curing, non-staining, non-bleeding, non-sagging type; color as selected by Engineer; as manufactured by General Electric Silicones or equal.

Durability (Bond and Cohesion) +/- 25 percent
Service Temperature Range - 80 to 400 degrees

Shore "A" Hardness Range 35

- E. S-4, Flexible Epoxy Jointing Compound: Multi-component, solvent-free, moisture insensitive epoxy resin, self leveling type; Sikadur 51 as manufactured by Sika Corporation or equal.

Tensile Strength 550 psi
Shore "A"Hardness Range 75-80

- F. S-6, Polyurethane Sealant: One component, moisture curing, non-staining, non-bleeding, non-sagging type; color as selected by Engineer; Sika-flex 1A as manufactured by Sika Corp. or equal.

Durability (Bond and Cohesion) ± 25 percent
Service Temperature - 40 to 170 degrees F
Shore A Hardness 40

- G. S-7, TREMPRO 644 High Temperature, one component, melting point, ASTM E814, by Tremco, or equal.

Tensile Strength 250 psi
Service Temperature Range -75 to 600 degrees F
Shore A Hardness 22

- H. S-8, Sealants for fire rated assemblies shall be coordinated with Section 07270 - Fire Stopping.

2.2 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer.
B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
C. Joint Backing: ASTM D1056; round, closed cell polyethylene foam rod; oversized 30 to 50 percent larger than joint width; as recommended by sealant manufacturer.
D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and joint openings are ready to receive work and field measurements are as shown on Drawings and recommended by the manufacturer.
B. Beginning of installation means installer accepts existing conditions.

3.2 PREPARATION

- A. Clean and prime joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Perform preparation in accordance ASTM C790 for latex base sealants.
- E. Protect elements surrounding the work of this Section from damage or disfiguration.

3.3 INSTALLATION

- A. Install sealant in strict accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios.
- C. Install joint backing to achieve a neck dimension no greater than 1/3 the joint width.
- D. Install bond breaker where joint backing is not used.
- E. Apply sealant within recommended application temperature ranges. Consult manufacture when sealant cannot applied within these temperature ranges.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Tool joints concave.

3.4 CLEANING AND REPAIRING

- A. Clean work under provisions of Section 01710.
- B. Clean adjacent soiled surfaces.
- C. Repair or replace defaced or disfigured finishes caused by work of this Section.

3.5 PROTECTION OF FINISHED WORK

- A. Protect sealants until cured.

3.6 SCHEDULE

<u>Type</u>	<u>Location</u>
A. C-1 or S-6	Interior: Door frame perimeters, window perimeters, window stools, and other joints designated to receive caulking as shown on the Drawings.
B. S-1 or S-6	Exterior: Door frames, window perimeters, window sills.
C. S-7	At all joints, penetrations and areas designated to receive either caulking or sealant surfaces subjected to high heat.
D. S-8	At all joints in fire-rated assemblies. Coordinate with Fire Stopping specifics in Section 07270.

END OF SECTION