



SECTION 07900

JOINT SEALANTS

Display hidden notes to specifier by using "Tools"/"Options"/"View"/"Hidden Text".

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Architectural grade sealants.
- B. Construction adhesives and sealants.
- C. General purpose grade sealants.

1.2 RELATED SECTIONS

- A. Section 04800 - Masonry Assemblies.
- B. Section 07412 - Metal Wall Panels.
- C. Section 07460 - Siding.
- D. Section 08400 - Entrances and Storefronts.

1.3 REFERENCES

- A. American Architectural Manufacturer's Association (AAMA): AAMA 808.3 - Exterior Perimeter Sealing Compound.
- B. ASTM International (ASTM):
 - 1. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
 - 2. ASTM C 1311 - Standard Specification for Solvent Release Sealants.
- C. California Air Resources Board (CARB).
- D. CAN/CGSB 19.24-M90 - Multicomponent, Chemical-Curing Sealing Compound.
- E. FDA 21 CFR.177.2600, USDA - Rubber Articles Intended for Repeat Use.
- F. Military Specifications and Standards - MIL-A-46106 - Adhesive-Sealants, Silicone, RTV, One-Component.
- G. NOA 06-1002.10, Miami Dade County Building Code for high velocity hurricane zones.
- H. Ozone Transport Commission (OTC).

- I. South Coast Air Quality Management District (SCAQMD).
- J. Sealant Waterproofing and Restoration Institute (SWRI).
- K. U.S. Federal Specifications (Fed. Spec.):
 - 1. TT-S-00227E - Sealing Compound: Elastomeric Type, Multi-Component (for Calking, Sealing, and Glazing in Buildings and Other Structures).
 - 2. TT-S-00230C - Sealing Compound: Elastomeric Type, Single Component (for Calking, Sealing, and Glazing in Buildings and Other Structures).
 - 3. TT-S-001543A - Sealing Compound: Silicone Rubber Base (for Calking, Sealing, and Glazing in Buildings and Other Structures).
 - 4. TT-S-001657 - Sealing Compound: Single Component, Butyl Rubber Based, Solvent Release Type (for Buildings and Other Structures).
- L. U.S. Green Building Council (USGBC), LEED program.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's technical data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods including joint design, surface preparation, and application methods.
 - 4. Submit manufacturer's test reports indicating test results of adhesion and/or compatibility testing of samples of substrates which either come in contact with or are in close proximity to sealants.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Prepare mock-ups for sealants and for each type of surface using same materials, tools, equipment, and procedures intended for actual surface preparation and application under actual use and environmental conditions.
 - 2. Verify adhesion of sealants and compatibility of materials in contact with or in close proximity to sealants.
 - 3. Perform manufacturer's required adhesion-to-substrate pretest.
 - 4. Test for sealant and surface staining or discoloration.
 - 5. Obtain Architect's approval of mock-ups.
 - 6. Retain mock-ups to establish intended standards by which sealants will be judged.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying:
 - 1. Product name.
 - 2. Manufacturer.
 - 3. Sealant color.
 - 4. Sealant batch or lot number.
 - 5. Sealant use-before date.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
 - 1. Store materials in a clean, dry area indoors in accordance with manufacturer's instructions.
 - 2. Store sealants within temperature range in accordance with manufacturer's instructions.
 - 3. Keep containers sealed until ready for use.
 - 4. Do not use materials after manufacturer's use-before date.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
 - 1. Do not apply sealants to surfaces that are wet, damp, or contain frost.
 - 2. Do not apply sealants when air or surface temperature is below 35 degrees F (4 degrees C).
 - 3. Use caution when applying sealants when air or surface temperature is above 120 degrees F (49 degrees C).

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Bostik Inc.; 211 Boston St., Middleton, MA 01949-2128. ASD. Toll Free: (888) 592-8558. Tel: (978)777-0100. Fax: (978) 750-7212. Email: christine.krisko@bostik-us.com. Web: <http://www.bostik-us.com>.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 ONE-COMPONENT ARCHITECTURAL GRADE SEALANTS

- A. Chem-Calk 2020 Hybrid Sealant: One-component, architectural grade, solvent-free, non-yellowing sealant as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM 920, Type S, Grade NS, Class 50.
 - b. VOC: 16 g/L.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 - 3. Color: As indicated on the Drawings.

- B. Chem-Calk 900 Architectural Grade Polyurethane Sealant: One-component, un-primed adhesion, premium architectural grade sealant as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM C-920, Type S, Grade NS, Class 25, Use NT.
 - b. US Federal Specification TT-S00230, Type II, Class A.
 - c. VOC: 48 g/L.
 - d. CARB, OTC and SCAQMD compliant.
 - e. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 - 3. Color: As indicated on the Drawings.

- C. Chem-Calk 955-SL Self-Leveling Polyurethane Sealant: One-component, architectural grade as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM C-920, Type S, Grade P, Class 35, Use T, G, M, A.
 - b. VOC: 51 g/L.
 - c. CARB, OTC and SCAQMD compliant.
 - d. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 - 3. Color: As indicated on the Drawings.

2.3 TWO-COMPONENT ARCHITECTURAL GRADE SEALANTS

- A. Chem-Calk 505, Two-Component, Non-Sag, Polyurethane Sealant: Two-component, solvent free, architectural grade sealant as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM C920, Type M, Grade NS, Class 25, Use T, G, M, A.
 - b. US Federal Specification TT-S-00227E, Type II, Class A.
 - c. CAN/CGSB 19.24-M90.
 - d. CARB, OTC and SCAQMD compliant.
 - e. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard Two-Component Color #C-100.
 - 3. Color: As indicated on the Drawings.

- B. Chem-Calk 555-SL, Two-Component, Self-Leveling, Polyurethane Sealant: Two-Component, Solvent free, architectural grade sealant as manufactured by Bostik, Inc.
 - 1. Compliance:
 - a. ASTM C920, Type M, Grade P, Class 25, Use T, G, M, A.
 - b. US Federal Specification TT-S-00227E, Type II, Class A.
 - c. CAN/CGSB 19.24-M90.
 - d. CARB, OTC and SCAQMD compliant
 - e. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.

 - 3. Color: As indicated on the Drawings.

2.4 CONSTRUCTION GRADE SEALANTS

- A. Chem-Calk 915 Polyurethane Sealant: One-component, non-sag, smooth polyurethane, construction grade sealant as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM C-920, Type S, Grade NS, Class 25, Use NT, G, M, A.
 - b. US Federal Specification TT-S-00230C, Type II, Class A.
 - c. NOA 06-1002.10, Miami Dade County Building Code for high velocity hurricane zones.
 - d. VOC: 53 g/L.
 - e. CARB, OTC and SCAQMD compliant.
 - f. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 - 3. Color: As indicated on the Drawings.

- B. Chem-Calk 916 Textured Polyurethane Sealant: One-component, non-sag, textured, polyurethane, elastomeric, construction grade sealant as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM C-920, Type S, Grade NS, Class 25, Use NT.
 - b. US Federal Specification TT-S-00230C, Type II, Class A.
 - c. VOC: 53 g/L.
 - d. CARB, OTC and SCAQMD compliant.
 - e. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 - 3. Color: As indicated on the Drawings.

- C. Chem-Calk 2000 Hybrid Sealant: Smooth, one-component, solvent-free, non-yellowing, advanced hybrid, construction grade sealant as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM C-920, Type S, Grade NS, Class 25, Use NT;
 - b. US Federal Specification TT-S-00230C, Type II, Class A.
 - c. VOC: 21 g/L.
 - d. CARB, OTC and SCAQMD compliant.
 - e. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 - 3. Color: As indicated on the Drawings.

- D. Chem-Calk 2000T Hybrid Sealant: Textured, one-component, solvent-free, non-yellowing, advanced hybrid, construction grade sealant as manufactured by Bostik Inc.
 - 1. Compliance:
 - a. ASTM C-920, Type S, Grade NS, Class 25, Use NT.
 - b. US Federal Specification TT-S-00230C, Type II, Class A.
 - c. VOC: 21 g/L.
 - d. CARB, OTC and SCAQMD compliant.
 - e. USGBC LEED compliant.
 - 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 - 3. Color: As indicated on the Drawings.

2.5 GENERAL PURPOSE GRADE SEALANTS

- A. Chem-Calk GPS1 Polyurethane Sealant: One-component, non-sag, polyurethane, moisture curing, elastomeric general purpose grade sealant as manufactured by Bostik Inc.
1. Compliance:
 - a. ASTM C-920, Type S, Grade NS, Class 25, Use NT.
 - b. US Federal Specification TT-S-00230C, Type II, Class A.
 - c. VOC: 51 g/L.
 - d. CARB, OTC and SCAQMD compliant.
 - e. USGBC LEED compliant.
 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 3. Color: As indicated on the Drawings.
- B. Chem-Calk 300 General Purpose Butyl Polyurethane Sealant: High performance, one-component, butyl polyurethane as manufactured by Bostik Inc.
1. Compliance:
 - a. ASTM 1311.
 - b. US Federal Specification TT001657.
 - c. VOC: 240 g/L.
 - d. CARB, OTC and SCAQMD compliant.
 - e. USGBC LEED compliant.
 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 3. Color: As indicated on the Drawings.
- C. Chem-Calk 1200 Silicone Sealant: One-component, RTV as manufactured by Bostik Inc.
1. Compliance:
 - a. CARB and SCAQMD compliant.
 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 3. Color: As indicated on the Drawings.
- D. Chem-Calk 1200-HT Acetoxy (Acid)-Cure Silicone Sealant: High performance, RTV, general purpose grade as manufactured by Bostik Inc.
1. Compliance:
 - a. ASTM C920, Type S, Grade NS.
 - b. US Federal Specification TT-S-00230C.
 - c. US Federal Specification TT-S-001543A.
 - d. FDA 21 CFR.177.2600, USDA.
 - e. MIL-A-46106.
 - f. CARB and SCAQMD compliant.
 2. Color: Red.
- E. Chem-Calk 1250 Oxime/Neutral Cure Silicone Sealant: High-performance, with optimized modulus, general purpose grade as manufactured by Bostik Inc.
1. Compliance:
 - a. ASTM C920, Type S, Grade NS, Class 25.
 - b. US Federal Specification TT-S-00230C.
 - c. US Federal Specification TT-S-001543A.
 - d. AAMA 808 and 803 (Type 1), 802 (Type 1 & 2).
 - e. MIL-A-46106.
 - f. CARB and SCAQMD compliant.
 2. Color: As selected by Architect from manufacturer's full range of standard color options as indicated in Bostik Standard One-Component Color #C-101.
 3. Color: As indicated on the Drawings.

- F. Chem-Calk FRP (Fiberglass Reinforced Panel) Synthetic Acrylic, Latex-Based Adhesive: General purpose grade adhesive as manufactured by Bostik Inc.
 - 1. Color: White.
- G. Primer N-32 as manufactured by Bostik Inc.
- H. Primer N-40 as manufactured by Bostik Inc.
- I. Prime Coat Primer as manufactured by Bostik Inc.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine joints to receive sealants. Notify Architect if conditions are not acceptable.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation.
- C. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.2 PREPARATION

- A. Prepare joints in accordance with manufacturer's instructions. Ensure joint thickness is as indicated on the drawings.
- B. Remove dirt, dust, oil, grease, rust, loose materials, contaminants, and existing sealants from surfaces that contact sealants.
- C. Clean surfaces within 1 to 2 hours before applying sealants.

3.3 INSTALLATION

- A. Install sealants in accordance with manufacturer's instructions, with uniform appearance and in proper relation with adjacent materials.

3.4 CLEANING

- A. Remove excess sealants from glass, metal, and plastic surfaces while still uncured.
- B. Remove excess sealants from porous surfaces after initial cure or set-up.

3.5 PROTECTION

- A. Protect sealants in joints from damage until fully cured.

END OF SECTION