**Part 1-GENERAL**

**1.01 SECTION INCLUDES**

A.Exterior joints sealers in vertical surfaces and non-traffic horizontal surfaces.

 B.Fire-rated sealers in vertical surfaces of exterior walls.

 C.Fire-rated sealers at floor to wall condition.

**1.02 RELATED SECTIONS**

 A. Division 32 Section – Asphaltic Concrete Paving: Paving joints shall be sealed with products specified in Division Section – Joint Sealers.

 B. Division 32 Section – Portland Cement Concrete Paving: Curb and gutter and paving joints shall be sealed with products specified in Division 7 Section – Joint Sealers.

 C. Division 7 Section – Vapor Retarders: Joint sealing tape and adhesive sealants for vapor retarder perimeter joints.

 D. Division 7 Section – Built-Up Modified Bitumen Roofing: Penetration seals integral with roofing system.

 E. Division 7 Section – Flashing and Sheet Metal: Joint shall be sealed with products specified in Division 7 Section – Joint Sealers.

 F. Division 8 Section – Steel Doors and Frames: Door Frame perimeter joints shall be sealed with products specified in Division 7 Section – Joint Sealers.

 G. Division 8 Section – Aluminum Entrances and Storefronts: Sealants used for fabrication of framing and for installation of glazing. Perimeter joints shall be sealed with products specified in Division 7 Section – Joint Sealers.

 H. Division 8 Section – Glazing: Sealers used for installation of glass.

 I. Division 9 Section – Painting: Use of Painter’s caulk for preparation of surfaces to receive field finish paint.

**1.3 SYSTEM DESCRIPTION**

 A. Joint Sealer Work for Weathertightness: Work includes all interior and exterior caulking and sealing required to make building weathertight and includes caulking and sealing wherever expansion and contraction occurs and between materials and products which could lead to infiltration of moisture, water, light or air blown particles into building.

 B. Joint Sealer Work for Acoustical Control: Work includes interior caulking and sealing required to stop airborne sound transmission through building assemblies.

 C. Joint Sealer Work for Moisture Control: Work includes interior caulking and sealing to fill openings and seams to prevent moisture penetration.

 D. Joint Sealer Work for Appearance: Work includes interior caulking and sealing to neatly trim and fill openings prior to painting.

 E. Definition: The terms sealant and caulking shall be considered synonymous.

**1.4 REFERENCES**

 **A.** Sealant, Waterproofing and Restoration Institute (SWRI): Sealants – The Professional’s Guide.

 **B.** American Society for Testing and Materials (ASTM): Standards referenced apply to the work only to the extent specified by the reference.

**1.5 SUBMITTALS**

 **A.** Product Data: Each joint sealant product required. Indicate sealant chemical characteristics, performance criteria, limitations, color availability.

 **B.** Installation Instructions: Instructions for joint preparations and joint sealer application. Note all deviations from SWRI recommendations.

 **C.** Samples:

 1. For initial selection purposes: Manufacturer’s standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view.

 2. For verification purposes: Each type and color of joint sealant required. Install joint sealant samples in ½-inch-wide joints formed between two 6-inch-long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

 **D.** Certification:

 1. Certification by joint sealant manufacturer that sealants plus the primers and cleaners required for sealant installation comply with local regulations controlling use of volatile organic compounds.

 2. Certification from manufacturers of joint sealants attesting that their products comply with specifications requirements and are suitable for the use indicated.

 **E.** Qualification Data: Installer’s qualifications, complying with requirements specified in Article titled QUALITY ASSURANCE. Include list of completed projects with project names addresses, names of architects and owners, plus other information specified.

 **F.** Test Data: compatibility and adhesion test reports from elastomeric sealant manufacturer indicating that materials forming joint substrates and joint sealant backings have been tested for compatibility and adhesion with joint sealants. Include sealant manufacturer’s interpretation of test results relative to sealant performance and recommendations for primers and substrate preparation needed to obtain adhesion.

 **G.** Product test reports for each type of joints sealants indicated, evidencing compliance with requirements specified.

 **H.** Pre-Construction field test reports indicating which products and joint preparation methods demonstrate acceptable adhesion to joint substrates.

**1.6 QUALITY ASSURANCE**

 **A.** Applicator’s Qualifications: Company specializing in joint sealer work with minimum three years documented experience and approved by sealant manufacturer. Installer shall have successfully completed, within 3 years, at least 3 joint sealer installations of similar type and scope as that required for Project.

 **B.** Single Source responsibility for Joint Sealer Materials: Obtain sealer materials from a single manufacturer for each different product required.

 **C.** Industry Standard: Conform to SWRI – Sealants: The Professionals Guide, requirements and recommendations for installation conditions, substrate materials and sealant product selection.

 **D.** Product Testing: Provide comprehensive test data for each type of joint sealer based on tests conducted by a qualified independent testing laboratory on current product formulations within a 24-month period preceding date of Contractor’s submittal of test results to Architect.

 **E.** Pre-Construction Field Testing: Prior to installation of joint sealants, field-test their adhesion to joint substrates as follows:

 1. Locate test joints were directed by Architect.

 2. Conduct field tests for each application indicated below:

 a. Each type of elastomeric sealant and joint substrate indicated.

 b. Each type of non-elastomeric sealant and joint substrate indicated.

 3. Arrange for tests to take place with both Architect and joint sealer manufacturer’s technical representative present.

 4. Test Method: test joint sealers by hand pull method described below:

 a. Install joint sealants in 5-feet joint lengths using same materials and methods for joint preparation and joint sealant installation required for completed Work. Allow sealants to cure fully before testing.

 b. Make knife cuts as follows: a horizontal cut from one side of joint to the other followed by 2 vertical cuts approximately 2 inches long at side of joint and meeting horizontal cut at top of 2 inch cuts. Place a mark 1 inch from top of 2 inch piece.

 c. Use fingers to grasp 2 inch piece of sealant just above 1 inch mark; pull firmly down at a 90 degree angle or more while holding a ruler alongside of sealant. Pull sealant out of joint to the distance recommended by sealant manufacturer for movement capability in extension; hold this position for 10 seconds.

 5. Report whether or not sealant in joint connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate.

 6. Evaluation of Field Test results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants which fail to adhere to joint substrates during testing.

**1.07 DELIVERY, STORAGE AND HANDLING**

A. Delivery: Deliver materials in original, tightly sealed containers or unopened packages with manufacture’s name, labels, product identification, lot numbers (where appropriate), color, expiration period for use, pot life, curing time, and mixing instructions for multi-component materials.

 B. Storage and Handling: Store and handle materials in compliance with manufacturers’ instructions and recommendations, to prevent their deterioration or damage due to moisture, high and low temperatures, contaminants, or other causes. Store materials out of weather in original containers or unopened packages as recommended by manufacturer.

**1.08 WARRANTY**

A.Extended Warranty: Contractor and sealant applicator shall jointly furnish a written warranty to the District stating that joints as specified in this Section which fail to achieve and maintain air tight and watertight seal, exhibit loss of cohesion, or do not cure within a period of five years from the date established in “Notice of Completion” except for failure due to structural defects, will be repaired or reconstructed at no cost to District.

**1.09 PROJECT CONDITIONS**

 **A.** Environmental Conditions: Do not proceed with installation of joint sealants under the following conditions:

 1. When ambient and substrate temperature conditions are outside the limits permitted by joint sealant manufacturer; below 40 degrees F or above 100 degrees F.

 2. When joint substrates are wet.

 **B.** Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.

 **C.** Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

 **D.** Project Conditions:

 1. Do not install solvent curing sealants in enclosed building spaces.

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

**1.10 SEQUENCING AND SCHEDULING**

 **A.** Sequencing and Scheduling: Sequence installation of joint sealers to occur not less than 21 nor more than 30 days after completion of waterproofing, unless otherwise indicated.

**PART 2-PRODUCTS**

**2.1 MATERIALS, GENERAL**

 **A.** Compatibility: Provide joint sealers, joint fillers and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experiences.

**2.2 ELASTOMERIC JOINT SEALANTS**

 **A.** Elastomeric Sealant Standard: Provide manufacturer’s standard chemically curing, elastomeric sealant of base polymer indicated which complies with ASTM C920 requirements, including those referenced for Type, Grade, Class, and Uses.

 **B.** One-Part Non-Acid-Curing Silicone Sealant; Type S, Grade NS, Class 25; suitable for Used T, NT, M, G, A, and, as applicable to joint substrates indicated, O; and complying with the following requirements for Uses and additional joint movement capability:

 1. Additional capability, when tested for adhesion and cohesion under maximum cyclic movement in conformance to ASTM C719, to withstand the following percentage changes in joint width as measured at time of application and remain in compliance with other requirements of ASTM C920 for Uses with 50 percent movement in both extension and compression for a total of 100 percent movement.

 2. Acceptable Products and Manufacturers: Al listed below. Equivalent products of other manufacturers will be considered in accordance with the “or equal” provision specified in Division 1 Section – Product Requirements.

 a. Chem-Caulk N-Cure 2000, by Bostik Construction Products Div.

 b. Dow Corning 790, by Dow Corning Corp.

 c. Silglaze N SCS 2501, by General Electric Co.

 d. Silpruf SCS 2000, by General Electric Co.

 e. 864, by Pecora Corp.

 f. Rhodorsil 5C, by Rhone-Poulenc Inc.

 g. Spectrum 1, by Tremco, Inc.

 h. Spectrum 2, by Tremco, Inc.

 **C.** One-Part Acid-Curing Silicone Sealant: Type S, Grade NS, Class 25; suitable for Uses NT, G, A, and others as recommended by sealant manufacturer.

 1. Acceptable Products and Manufacturers: As listed below. Equivalent products of other manufacturers will be considered in accordance with the “or equal” provision specified in Division 1 Section – Product Requirements.

 a. Chem-Caulk 1200, by Bostik Construction Products Div.

 b. Dow Corning 999A, by Dow Corning Corp.

 c. SCS 1000, by General Electric Co.

 d. Construction 1200, by General Electric Co.

 e. 863, by Pecora Corp.

 f. Rhodorsil 3B, by Rhone-Poulenc Inc.

 g. Rhodorsil 90, by Rhone-Poulenc Inc.

 h. OmniPlus, by Sonneborn Building Products Div., Rexnord Chemical Products Inc.

 i. Proglaze, by Tremco, Inc.

 **D.** One-Part Mildew-Resistant Silicone Sealant: Type S, Grade NS, Class 25; suitable for Uses NT, G, A, and, as applicable to non-porous joint substrates indicated, O; formulated with fungicide; intended for sealing interior joints with non-porous substrates and subject to in-service exposure to conditions of high humidity y and temperature extremes.

 1. Acceptable Products and Manufacturers: As listed below. Products of other manufacturers will be considered in accordance with the “or equal” provision specified in Division 1 Section – Product Requirements.

 a. Dow Corning 786, by Dow Corning Corp.

 b. SCS 1702 Sanitary, by General Electric Co.

 c. 863 #345 White, by Pecora Corp.

 d. Rhodorsil 6B white, by Rhone-Poulenc Inc.

 e. Proglaze White, By Tremco Inc.

 f. OmniPlus, by Sonneborn Building Products Div., Rexnord Chemical Products Inc.

 **E.** One-Part Non-Acid-Curing Silicone sealant for Use T: Type S, Grade NS, Class 25; suitable for Uses T, M, and, as applicable to joint substrates indicated, O: and complying with the following requirement for additional joint movement capability:

 1. Additional capability, when tested for adhesion and cohesion under maximum cyclic movement in conformance to ASTM C719, to withstand the following percentage changes in joint width as measured at time of application and remain in compliance with other requirements of ASTM C920 for Uses with 100 percent movement in extension and 50 percent movement in compression for a total of 150 percent movement.

 2. Specified Product and Manufacturers: Dow Corning 888, by Dow Corning Corp.

 3. Acceptable Products and Manufacturers: None Identified. Products of other manufacturers will be considered in accordance with the “or equal” provision specified in Division 1 Section-Product Requirements.

**2.03 LATEX JOINT SEALANTS**

 **A.** Acrylic-Emulsion Sealant: Manufacturer’s standard, one part, non-sag, mildew-resistant, acrylic-emulsion sealant complying with ASTM C834, formulated to be paintable and recommended for exposed applications on interior and on protected exterior locations involving joint movement of not more than plus or minus 5 percent.

 1. Acceptable Products and Manufacturers: As listed below. Products of other manufacturers will be considered in accordance with the “or equal” provision specified in Division 1 Section-Product Requirements.

 a. Chem-Calk 600, by Bostik Construction Products Div.

 b. AC-20, by Pecora Corp.

 c. Sonolac, by Sonneborn Building Products Div.; Rexnord Chemical Products, Inc.

 d. Tremco Acrylic Latex 834, by Tremco Inc.

**2.4 JOINT FILLERS FOR PAVING**

 **A.** Joint Fillers for Paving, General: Provide joint fillers of thickness and widths indicated.

 **B.** Bituminous Fiber Joint Filler: Preformed strips of composition below, complying with ASTM D1751, asphalt saturated fiberboard.

**2.5 JOINT SEALANTS FOR PAVING**

 **A.** Two-Part Jet-Fuel-Resistant Cold-Applied Sealant: Manufacturer’s standard, pourable, chemically curing, elastomeric sealant complying with FS SS-S-200.

 1. Acceptable Products and Manufacturers: As Listed below. Products of other manufacturers will be considered in accordance with the “or equal” provision specified in Division 1 Section-Product Requirements.

 a. Vulkem 200 or 202, by Mameco International, Inc.

 b. Dardox, by W. R. Meadows, Inc.

 c. Urexpan Nr-300, by Pecora Corp.

 d. Sonolastic SL1 or SL2, by Sonneborn Building Products Div., Rexnord Chemical Products Inc.

**2.6 MISCELLANEOUS MATERIALS**

 **A.** Joint Sealant Backing, General: Provide sealant backings of material and type which are non-staining; are compatible with joint substrates, sealant, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

 **B.** Primer: Provide type recommended by joint sealer manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from pre-construction joint sealer-substrate tests and field tests.

 **C.** Cleaners for Non-porous Surfaces: Provide non-staining, chemical cleaners of type which are acceptable to manufacturers of sealants and sealant backing materials, which are not harmful to substrates and adjacent non-porous materials, and which do not leave oily residues or otherwise have a detrimental effect on sealant adhesion or in-service performance.

 **D.** Masking Tape: Provide non-staining, non-absorbent type compatible with joint sealants and to surfaces adjacent to joints.

 **E.** Plastic Foam Joint Fillers: Preformed, compressible, resilient, non-waxing, non-extruding strips of flexible, non-gassing plastic foam of material indicated below; non-absorbent to water and gas; and of size, shape and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

 1. Specified Manufacturer and Product: Applied Technologies, Inc., Sof Rod, proprietary, reticulated, closed-cell polymeric foam, non-outgassing, with a density of 2.5 pcf and tensile strength of 35 psi per ASTM D1623, and with water absorption less than 0.02 gms/cc per ASTM C1247.

 2. Acceptable Manufacturer and Product: None Identified. Equivalent products of other manufacturers will be considered in accordance with the “or equal” provision specified in Division 1 Section-Product Requirements.

 **F.** Elastomeric Tubing Joint Fillers: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D1056, non-absorbent to water and gas, capable of remaining resilient at temperatures down to -26 degrees F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and otherwise contribute to optimum sealant performance.

 **G.** Bond-Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self- adhesive tape where applicable.

 **H.** Mineral Wool: for fire-rated joint construction, Partek Paroc Industrial Board 1240 or equal. Product shall be as required for UL-listed fire-rated joint construction.

**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.** Examine joints to be sealed for construction defects which would adversely affect executions of Work. Correct all defects and detrimental conditions before proceeding with joint sealers.

 **C.** Ensure that concrete has cured 28 days minimum.

**3.2 PREPARATION**

 **A.** Surface Cleaning of Joints: Clean out of joints immediately before installing joint sealers to comply with recommendations of joint sealer manufacturers and the following requirements:

 1. Remove all foreign material from joint substrates which could interfere with adhesion of joint sealer, including dust; paints, except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer: old joint sealers, oil; grease; waterproofing; water repellents; water; surface dirt; and frost.

 2. Clean concrete, unglazed surfaces of ceramic tile, and similar porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produces a clean, sound substrate capable of developing optimum bond with joint sealants Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.

 3. Remove laitance and form release agents from concrete.

 4. Clean metal, glass, porcelain enamel, surfaces of ceramic tile: and other non-porous surfaces by chemical cleaners or other means which are not harmful to substrates or leave residues capable of interfering with adhesion of joint sealers.

 **B.** Joint Priming; Prime joint substrates where indicated or where recommended by joint sealer manufacturer based on pre-construction joint sealer-substrate tests or prior experience. Apply primer to comply with joint sealer manufacturer’s recommendations. Confine primers to areas of joint sealer bond, do not allow spillage or migration onto adjoining surfaces.

**3.3 JOINT DIMENSIONS**

 **A.** Butyl Base type Sealant: Minimum joint width ¼-inch and depth of 3 times width of joint, with a maximum depth of ¾-inch.

 **B.** Silicone Rubber Sealant: Minimum joint width ¼-inch and depth of approximately one-half the width, but in no case less than ¼-inch. Other wide-to-depth ratios as follows:

|  |  |  |
| --- | --- | --- |
| **JOINT WIDTH:** |  **DEPTH:** |  |
| **For Non-Porous Surfaces:**  | **Minimum:** | **Maximum:** |
| 1/4” (minimum) | 1/4" | 1/4”  |
| 1/4” to 1/2” | 1/2 of width | Equal to width |
| Over 1/2" | Not permitted | Not Permitted |
| **For Porous Surfaces:** | **Minimum:** | **Maximum:** |
| 1/4” (minimum) | 1/4”  | 1/4” |
| 1/4” to 1/2" | 1/4” | Equal to width |
| 1/2” to 1” | 1/2” | Equal to width |
| Over 1” | Not permitted | Not Permitted |

 **C.** Acrylic and Polyurethane: Minimum joint width ¼-inch and depth equal to width, but in no case deeper than ½-inch. Other width-to-depth ratios as follows:

|  |  |  |
| --- | --- | --- |
| **JOINT WIDTH:** |  **DEPTH:** |  |
| **For Non-Porous Surfaces:** | **Minimum:** | **Maximum:** |
| 1/4” (minimum) | 1/4” | 1/4” |
| 1/4" to 1/2” | Equal to width | Equal to width |
| Over 1/2” to 1” maximum | 1/2” | 1/2” |
| **For Porous Surfaces:** | **Minimum:** | **Maximum:** |
| 1/4” (minimum) | 1/4” | 1/4” |
| 1/4” to 1/2” | 1/4” | 1/4" |
| 1/2” to 1” | 1/2" | 1/2” |
| Over 1” | Not Permitted | Not Permitted |

**3.4 COMPRESSION SEALS INSTALLATION**

 **A.** Environmental Conditions for Compression Seals Installation:

 1. Ambient air temperature: 45 degrees F to 85 degrees F.

 2 Rain: Install compression seals under dry conditions only.

 3. Substrate: Clean, free from dust, dirt and debris.

 **B.** Joint Preparation for Compression Seals: prepare joint in accordance with manufacturer’s instructions and recommendations. Thoroughly clean substrate. Apply adhesive to joint edges. Apply lubricant to seal edges.

**3.5 INSTALLATION OF JOINT SEALANTS**

 **A.** Installation of Joint Sealants, General: Comply with joint sealant manufacturer’s printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

 **B.** Elastomeric Sealant Installation Standard: Comply with Recommendations of ASTM C920 and C1193 for use of joint sealants as applicable to materials, applications and conditions indicated.

 **C.** Solvent-Release-Curing Sealant Installation Standard: Comply with requirements of ASTM C1311 for use of solvent-release-curing sealants.

 **D.** Latex Sealant Installation Standard: Comply with requirements of ASTM C834 and C1193 for use of latex sealants.

 **E.** Installation of Sealant Backings: Install sealant backings to comply with the following requirements:

 1. Install joint fillers of type specified, to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths which allow optimum sealant movement capability.

 a. Do not leave gaps between ends of joint fillers.

 b. Do not stretch, twist, puncture, or tear joint fillers.

 c. Remove absorbent joint fillers which have become wet prior to sealant application and replace with dry material.

 2. Install bond breaker tape between sealants and joint fillers, compression seals, or back of joints where adhesion of sealant to surfaces at back of joints would result in sealant failure.

 3. Install compressible seals serving as sealant backings to comply with requirements indicated above for joint fillers.

 **F.** Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths which allow optimum sealant movement capability.

 **G.** Tooling of Non-Sag Sealants: Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents which discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

 1. Provide concave joint configuration in conformance to Figure 4 in ASTM C1193, unless otherwise indicated.

 2. Provide flush joint configuration in conformance to Figure 4 in ASTM C1193, where indicated. Use masking tape to protect adjacent surfaces of recessed tooled joints.

 3. Provide Recessed joint configuration in conformance to Figure 4 in ASTM C1193, of recess depth and at locations indicated.

**3.6 CLEANING AND PROTECTION**

 **A.** Progress Cleaning: Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealers and of products in which joints occur.

 1. Clean joints by mechanical means or with solvent as recommended by sealant manufacturer and compatible with finish material, to eliminate soiling and overlap on adjacent surfaces.

 2. Clean adjacent soiled surfaces.

 **B.** Repairs: Repair or replace defaced or disfigured finishes caused by joint sealer Work.

**3.7 PROTECTION**

 **A.** Protection: Protect joint sealants during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes.

 1. Joint sealers shall be without deterioration or damage at Substantial Completion review.

 2. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so that and installations with repaired areas are indistinguishable from original work.

**3.3 SCHEDULES**

 **A.** Schedule Of Exterior Joints in Vertical Surfaces and Non-Traffic Horizontal Surfaces.

|  |  |
| --- | --- |
| **Location** | **Sealant** |
| Joints in cast in place concrete and, between metal and concrete. | One-Part Non-Acid Curing Silicone Sealant, at edges of compression seal. |
| Perimeter joints between materials listed above and frames of doors, windows, aluminum entrances and storefront system. | One-Part Non-Acid Curing Silicone Sealant |
| Control and expansion joints in ceiling and overhead surfaces. | One-Part Non-Acid Curing Silicone Sealant |
| Exposed joints within sheet metal copings, flashings and trim, aluminum entrance and storefront system and sloped glazing system. | One-Part Acid-Curing Silicone Sealant |

 **B.** Schedule Of Exterior Joints In Horizontal Traffic Surfaces

|  |  |
| --- | --- |
| **Location** | **Sealant** |
| Control, expansion, and isolation joints in cast in place concrete slabs for floors and vehicular paving. | One-Part Non-Acid Curing Silicone Sealant for Use T |
| Control, expansion, and isolation joints in cast in place concrete slabs for floors and vehicular paving. | Two-Part Jet Fuel-Resistant Cold-Applied Sealant |
| Tile Control and expansion joints. | One-Part Non-Acid Curing Silicone Sealant for Use T |
| Joints between different materials listed above. | One-Part Non-Acid Curing Silicone Sealant for Use T |

 **C.** Schedule Of Interior Joints In Vertical Surfaces

|  |  |
| --- | --- |
| **Location** | **Sealant** |
| Joints in cast-in-place concrete and between metal and concrete. | One-Part Non-Acid Curing Silicone Sealant. |
| Perimeter joints between materials listed above and frames of doors, windows, aluminum entrances and storefront. | One-Part Non-Acid Curing Silicone Sealant. |

END OF SECTION