

DIVISION 7 THERMAL AND MOISTURE PROTECTION**SECTION 07160 BITUMINOUS DAMPPROOFING****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Cold applied asphalt bitumen dampproofing.

1.2 RELATED SECTIONS

- A. Section 02223 - Backfilling.
- B. Section 04300-Unit Masonry System: Parged masonry surfaces at brick veneer.

1.3 REFERENCES

- A. ASTM D41 - Asphalt Primer Used in Roofing and Waterproofing.
- B. ASTM D1227 - Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing.

1.4 SUBMITTALS FOR INFORMATION

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Waterproofing Manual.
- B. Applicator: Company specializing in performing the work of this section with minimum three years experience.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Section 01600 - Material and Equipment: Environmental conditions affecting products on site.
- B. Maintain ambient temperatures above 45 degrees F for 24 hours before and during application until membrane has cured.

PART 2 PRODUCTS**2.1 MANUFACTURERS**

- A. Koppers Type #72 Brush On.
- B. Other Acceptable Manufacturers:

1. Sonneborn.
2. W. R. Meadows.
3. Karnal.

C. Section 01600 - Material and Equipment: Product options and substitutions. Substitutions: Permitted.

2.2 COLD ASPHALTIC MATERIALS

- A. Asphalt Emulsion Mastic: Conforming to ASTM D1227, Type IV.
- B. Asphalt Primer: ASTM D41, compatible with substrate.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.
- B. Verify substrate surfaces are durable, free of matter detrimental to adhesion or application of dampproofing system.
- C. Verify items which penetrate surfaces to receive dampproofing are securely installed.

3.2 PREPARATION

- A. Protect adjacent surfaces not designated to receive dampproofing.
- B. Clean and prepare surfaces to receive dampproofing in accordance with manufacturer's instructions.
- C. Do not apply dampproofing to surfaces unacceptable to manufacturer or applicator.
- D. Apply mastic to seal penetrations, small cracks, or minor honeycomb in substrate.

3.3 APPLICATION

- A. Prime surfaces in accordance with manufacturer's instructions.
- B. Prime surfaces at a rate of 1-1/2 gal/100 sq ft . Permit primer to dry.
- C. Apply cold bitumen with brush.
- D. Apply bitumen in two coats, continuous and uniform, at a rate of 1-1/2 gal/100 sq ft. When first coat is dry to the touch apply second coat at right angle to first coat.
- E. Seal items projecting through dampproofing surface with mastic. Seal watertight.

END OF SECTION

SECTION 07200 INSULATION**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Batt insulation.
- B. Batt insulation for filling perimeter window and door shim spaces, crevices in exterior wall and ceiling.

1.02 RELATED SECTIONS

- A. Section 07270 - Firestopping.

1.03 REFERENCES

- A. ASTM C665 - Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- B. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- C. NFPA 255 - Test of Surface Burning Characteristics of Building Materials.
- D. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.04 COORDINATION

- A. Coordinate work under provisions of Section 01039.

PART 2 PRODUCTS**2.01 MANUFACTURERS - INSULATION MATERIALS**

- A. Owens Corning
- B. Schuller
- C. Insulation Corporation of America.
- D. Substitutions: Under provisions of Section 01600. Substitutions: permitted.

2.02 MATERIALS

- A. Batt Insulation: ASTM C665; preformed glass fiber batt; friction fit, conforming to the following:
 - 1. Thermal Resistance: R 19.
 - 2. Batt Size: 24" x 96" inches.
 - 3. Facing: Foil facing where required.
 - 4. Flame/Smoke Properties: 25/450 in accordance with ASTM E84.

- B. Staples: Steel wire; electroplated; type and size to suit application.
- C. Tape: Bright aluminum self-adhering type, mesh reinforced, and 2 inch wide.
- D. Insulation Fasteners: Steel impale spindle and clip on flat metal base, self adhering backing, length to suit insulation thickness, capable of securely and rigidly fastening insulation in place.
- E. Wire Mesh: Galvanized steel, hexagonal wire mesh.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify site conditions under provisions of Section 01039.
- B. Verify that substrate, adjacent materials, and insulation are dry and ready to receive insulation.

3.02 INSTALLATION BATT INSULATION

- A. Install insulation in accordance with insulation manufacturer's instructions. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.

END OF SECTION

SECTION 07214 FOAMED-IN-PLACE INSULATION**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Foamed-in-place insulation in masonry walls and at exterior wall crevices requiring a thermal seal.

1.02 RELATED SECTIONS

- A. Section 04300 - Unit Masonry System: Wall construction.

1.03 REFERENCES

- A. ASTM C1029 - Spray-Applied Rigid Cellular Polyurethane Insulation Thermal Insulation.

1.04 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years experience.
- B. Applicator: Company specializing in performing the work of this section with minimum 5 years experience.

1.05 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame and smoke, concealment, and over coat requirements.

1.06 PRE-INSTALLATION CONFERENCE

- A. Convene one week prior to commencing work of this section, under provisions of Section 01039.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Do not install insulation when ambient temperature is lower than 70 degrees F.

1.08 SEQUENCING

- A. Sequence work to ensure timely placement of insulation within construction spaces.

PART 2 PRODUCTS**2.01 MANUFACTURERS**

- A. C.P. Chemical Company, Inc. - Product - Tripolymer.
- B. Tailored Chemical Products, Inc. - Product Core-Fill 500.
- C. Thermal Corporation of America - Product Thermco.

2.02 MATERIALS

- A. Insulation: ASTM C1029, Type II polyurethane.

2.03 ACCESSORIES

- A. Primer: As required by insulation manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify site conditions under provisions of Section 01039.
- B. Verify work within construction spaces or crevices is complete prior to insulation application.
- C. Verify that surfaces are clean, dry, and free of matter that may inhibit insulation or overcoat adhesion.

3.02 PREPARATION

- A. Mask and protect adjacent surfaces from over spray or dusting.

3.03 APPLICATION

- A. Apply insulation in accordance with manufacturer's instructions.
- B. Apply insulation by froth method, to a uniform monolithic density without voids.
- C. Apply as required filling all voids in concrete block.

3.04 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01500.
- B. Do not permit subsequent construction work to disturb applied insulation.

END OF SECTION

SECTION 07514 BUILT UP ASPHALT ROOFING**PART 1 GENERAL****1.1. SECTION INCLUDES**

- A. Vapor retarder over structural deck surface.
- B. Insulation, protective coating, base flashings, roofing membrane, expansion joints and cant strips.

1.2. RELATED SECTIONS

- A. Section 05311 - Steel Roof Deck.
- B. Section 06114 - Wood Blocking and Curbing: Wood nailers.
- C. Section 07620 - Sheet Metal Flashing and Trim: counterflashings.

1.3. REFERENCES

- A. ASTM C726 - Standard Specification for Mineral Fiber Roof Insulation Board.
- B. ASTM D41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing.
- C. ASTM D312 - Standard Specification for Asphalt Used in Roofing.
- D. ASTM D2178 - Standard Specification for Asphalt Glass (Felt) Used in Roofing and Waterproofing.
- E. ASTM D2822 - Standard Specification for Asphalt Roof Cement.
- F. ASTM D3909 - Standard Specification for Asphalt Roll Roofing (Glass Mat) Surfaced with Mineral Granules.
- G. ASTM D4897 - Standard Specification for Asphalt-Coated Glass-Fiber Venting Base Sheet Used in Roofing.
- H. FM DS 1-28 - Insulated Steel Deck Construction; Factory Mutual.
- I. NRCA ML 102 - Roofing and Waterproofing Manual; National Roofing Contractors Association.
- J. UL - Fire Resistance Directory.

1.4. SYSTEM DESCRIPTION

- A. Built-up Roofing System: Four ply asphalt membrane system with vapor retarder, insulation, and mineral surfaced cap sheet.

1.5. SUBMITTALS FOR INFORMATION

- A. Section 01300 - Submittals: Procedures for submittals.
 - B. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
 - C. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.
 - D. Manufacturer's Field Reports: Indicate procedures followed; ambient temperatures, humidity, wind velocity during application and supplementary instructions given.
- 1.6. SUBMITTALS AT PROJECT CLOSEOUT
- A. Section 01700 - Contract Closeout: Procedures for submittals.
 - B. Warranty: Submit manufacturers warranty and ensure forms have been completed in Owner's name and registered with manufacturer.
- 1.7. QUALITY ASSURANCE
- A. Perform Work in accordance with manufacturer's instructions. Maintain one copy on site.
 - B. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years experience.
 - C. Applicator Qualifications: Company specializing in performing the work of this section approved by manufacturer.
- 1.8. REGULATORY REQUIREMENTS
- A. Fire Hazard Classification: UL Class A.
 - B. Roof Assembly Classification: FM Class 1 Construction, wind uplift requirement of 1-90, in accordance with FM DS 1-28.
- 1.9. PRE-INSTALLATION MEETING
- A. Convene one week before starting work of this section.
 - B. Review preparation and installation procedures and coordinating and scheduling required with related work.
- 1.10. DELIVERY, STORAGE, AND PROTECTION
- A. Section 01600 - Material and Equipment: Transport, handle, store, and protect products.
 - B. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
 - C. Store products in weather protected environment, clear of ground and moisture.
 - D. Protect foam insulation from direct exposure to sunlight.

1.11. ENVIRONMENTAL REQUIREMENTS

- A. Section 01600 - Material and Equipment: Environmental conditions affecting products on site.
- B. Do not apply roofing membrane during unsuitable weather when ambient temperature is below 40 degrees F.
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

1.12. PROJECT CONDITIONS

- A. Section 01039 - Coordination and Meetings.
- B. Coordinate the work with installation of associated counter flashings installed by other sections as the work of this section proceeds.

1.13. WARRANTY

- A. Provide a 15- year warranty under provisions of Section 01700.
- B. Warranty: Cover damages resulting from failure to prevent perpetration of water.

PART 2 PRODUCTS

2.1 MANUFACTURERS - SHEET AND BITUMEN MATERIALS

- A. Johns Manville System 5GIC.
- B. Other Acceptable Manufacturers:
 - 1. GAF System I05M/P6.
 - 2. Tamko System 507.
 - 3. Celotex System AGS5CM.
 - 4. Substitutions: Refer to Section 01600 - Material and Equipment.

2.2 SHEET MATERIALS

- A. Glass Fiber Felts: ASTM D2178, Type IV.
- B. Base Sheet: ASTM D4897, Type II, vented; asphalt saturated and coated inorganic base sheet.
- C. Mineral Surfaced Felts: ASTM D3909; white colored mineral granules.
- D. Dry Sheathing Paper: Red rosin paper, unsaturated.

2.3 BITUMINOUS MATERIALS

- A. Asphalt Bitumen: ASTM D312 Type III.

- B. Asphalt Primer: ASTM D41.
- C. Plastic Cement: ASTM D2822 Type II, cutback asphalt type.

2.4 INSULATION

- A. Manufacturer: Johns Manville DuraFoam or equal.
- B. Insulation: Polyisocyanurate rigid board bonded in the foaming process to expanded perlite mineral aggregate board, with the following characteristics:
 - 1. Board Size: 48x96 inch.
 - 2. Board Thickness: 3.5 inches.
 - 3. Thermal Conductivity: C factor of 0.051 BTU/(hr.ft.2° F) as determined by ASTM C177.
 - 4. R-Value (LTTR): 19.70
 - 5. Board Edges: square.

2.5 FLASHINGS

- A. Flexible Flashings: Modified bitumen, SBS type; conforming to the following:
 - 1. Thickness: 0.158 inches (4 mm).
 - 2. Tensile Strength: 1,200 psi.
 - 3. Elasticity: 50 percent with full recovery without set.
 - 4. Color: White.

2.6 CANTS

- A. Fiber Cant and Tapered Edge Strips: Asphalt impregnated wood fiberboard, preformed to 45-degree angle.

2.7 ACCESSORIES

- A. Insulation Joint Tape: Asphalt treated glass fiber reinforced; 6 inches wide; self adhering.
- B. Insulation Fasteners: Appropriate for purpose intended and approved by Factory Mutual and system manufacturer; length required for thickness of insulation material and penetration of deck substrate, with metal washers.
- C. Roofing Nails: Galvanized, hot dipped type, size and configuration as required to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.
- B. Verify that surfaces and site condition is ready to receive work.
- C. Verify deck is supported and secure.

- D. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped to drains, valleys, or eaves, and suitable for installation of roof system.
- E. Verify deck surfaces are dry and free of snow or ice.

3.2 PREPARATION AND VAPOR RETARDER APPLICATION - METAL DECK - WITHOUT GYPSUM SHEATHING

- A. Apply fire resistant vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.

3.3 INSULATION APPLICATION

- A. Ensure vapor retarder is clean and dry, continuous, and ready for application of roofing system.
- B. Mechanically fasten insulation to deck in accordance with insulation manufacturer's instructions.
- C. Place fasteners per FM I-90.
- D. Place boards perpendicular to deck flutes with edges over flute surface for bearing support.
- E. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- F. Do not apply more insulation than can be covered with membrane in same day.

3.4 MEMBRANE APPLICATION

- A. Lay one ply coated base sheet, coated side down. Lap sides' 2 inches (50 mm); lap ends 6 inches (150 mm).
- B. Equiviscous Temperature (EVT) at Point of Application: In accordance with NRCA.
- C. Apply 3 plies of roof felt over coated base ply, weather lap edges and ends, mopped with 20 lb/square of bitumen per ply.
- D. Apply felts smooth, free from air pockets, wrinkles, fish-mouths, or tears.
- E. Extend base ply and membrane felts up cant strips a minimum of 4 inches onto vertical surfaces and under gravel stops. Mop on two additional plies of felt and one ply of granular surfaced felt as base flashings over roofing membrane plies. Secure to nailing strips at 4 inches oc and reglets.
- F. Install two plies membrane and bitumen glaze coat for cut-off at end of day's operation. Glaze felts exposed at end of working day. Remove cut-off before resuming roofing.
- G. Mop and seal two additional plies of felt around roof penetrations.

3.5 FLASHINGS AND ACCESSORIES

- A. Apply flexible base flashings to seal membrane to vertical elements.

- B. Fabricate roofing control and expansion joints to isolate roof into areas as indicated. Make joints watertight.
- C. Coordinate installation of roof drains and related flashings to NRCA Drawing W-1.
- D. Mop in and seal flashings and flanges of items penetrating membrane with two plies of felt.

3.6 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Assurance: Field inspection and testing.
- B. Laboratory Testing: To ascertain bitumen quantities placed.
- C. Require site attendance of roofing and insulation material manufacturers daily during installation of the Work.

3.7 CLEANING

- A. Section 01700 - Contract Closeout: Cleaning installed work.
- B. Remove bituminous markings from finished surfaces.
- C. In areas where finished surfaces are soiled by bitumen or other source of soiling caused by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their instructions.
- D. Repair or replace defaced or disfigured finishes caused by work of this section.

3.8 PROTECTION OF FINISHED WORK

- A. Section 01700 - Contract Closeout: Protecting installed work.
- B. Where traffic must continue over finished roof membrane, protect surfaces.

END OF SECTION

SECTION 07620 SHEET METAL FLASHING AND TRIM**PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Flashings and counterflashings, and fabricated sheet metal items.
- B. Reglets and accessories.

1.2 RELATED SECTIONS

- A. Section 04320-Brick Veneer Over Metal Stud Framing: Wall flashings in masonry.
- B. Section 07900 - Joint Sealers.
- C. Section 09900 - Painting: Field painting.

1.3 REFERENCES

- A. ASTM A361/A361M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process for Roofing and Siding.
- B. ASTM A446/A446M - Standard Specification for Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality.
- C. ASTM A526/A526M - Standard Specification for Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process, Commercial Quality.
- D. ASTM B32 - Standard Specification for Solder Metal.
- E. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- F. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos Free.
- G. FS TT-C-494 - Coating Compound, Bituminous, Solvent Type, Acid Resistant.
- H. SMACNA (Sheet Metal and Air Conditioning Contractors National Association) - Architectural Sheet Metal Manual.

1.4 DESIGN REQUIREMENTS

- A. Sheet Metal Flashings: Conform to the criteria of SMACNA "Architectural Sheet Metal Manual."

1.5 SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.

- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, termination's, and installation details.
- C. Product Data: Provide data on prefabricated components.
- D. Submit two samples 2 x 2 inch in size illustrating metal finish color.

1.6 QUALITY ASSURANCE

- A. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 2 years experience.

1.7 DELIVERY, STORAGE, AND PROTECTION

- A. Section 01600 - Material and Equipment: Transport, handle, store, and protect.
- B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials, which may cause discoloration or staining.

1.8 PROJECT CONDITIONS

- A. Section 01039 - Coordination and Meetings.

PART 2 PRODUCTS

2.1.1 SHEET MATERIALS

- A. Galvanized Steel: ASTM A361/A361M, ASTM A446/A446M, Grade A, or ASTM A526/A526M, G90 zinc coating; 0.018 inch 24 gage thick steel.
- B. Pre-Finished galvanized steel sheet: ASTM A 361 A/361M; ASTM A 446/A446 M Grade A or ASTM A 526/A526M; G90 Zinc coating; 0.02 inches, 24 gauge core steel, shop pre-coated with modified silicone coating; color as selected from manufacturer's standard.

2.1.2 ACCESSORIES

- A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers.
- B. Primer: Zinc molybdate type.
- C. Protective Backing Paint: FS TT-C-494, Bituminous.
- D. Sealant: Type A specified in Section 07900.
- E. Plastic Cement: ASTM D4586, Type I.
- F. Reglets: Springlok manufactured by Fry Reglet Corporation.
- G. Solder ASTM B32; 50/50 type.

- H. Copings: Pac-Loc, 24 gage G-90 galvanized, shapes and gage as indicated on drawings.

2.1.3 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet, minimum 2 inches wide, interlocking with sheet.
- C. Form pieces in longest possible lengths.
- D. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- E. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- F. Tin edges of copper sheet to be soldered. Solder shop formed metal joints. After soldering, remove flux. Wipe and wash solder joints clean. Weather seal joints.
- G. Fabricate corners from one piece with minimum 18-inch long legs; solder for rigidity, seal with sealant.
- H. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.
- I. Fabricate flashings to allow toe to extend 2 inches over roofing. Return and brake edges.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.
- B. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- C. Verify roofing termination and base flashings are in place, sealed, and secure.

3.2 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.
- C. Paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

3.3 INSTALLATION

- A. Insert flashings into reglets to form tight fit. Secure in place with plastic wedges. Seal flashings into reglets with sealant.

- B. Apply plastic cement compound between metal flashings and felt flashings.
- C. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- D. Seal metal joints watertight.

3.1 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Control: Field inspection.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

END OF SECTION

SECTION 07900 JOINT SEALERS**PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Sealants and joint backing.
- B. Precompressed foam sealers.
- C. Hollow gaskets.

1.2 RELATED SECTIONS

- A. Section 08800 - Glazing: Glazing sealants and accessories.
- B. Section 09260 - Gypsum Board Systems: Acoustic sealant.
- C. Section 09300 - Tile: Sealant used as tile grout.

1.3 REFERENCES

- A. ASTM C834 - Standard Specification for Latex Sealing Compounds.
- B. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications.
- C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
- D. ASTM C1193 - Standard Guide for Use of Joint Sealants.
- E. ASTM D1056 - Standard Specification for Flexible Cellular Materials - Sponge or Expanded Rubber.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in performing the work of this section with minimum three years experience.

1.5 ENVIRONMENTAL REQUIREMENTS

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

1.6 COORDINATION

- A. Section 01039 - Coordination and Meetings: Coordination requirements.
- B. Coordinate the work with all sections referencing this section.

PART 2 PRODUCTS

2.1 SEALANTS

- A. General Purpose Exterior Sealant: Polyurethane or Polysulfide; ASTM C920, Grade NS, Class 25, Uses M, G, and A; single component.
1. Standard colors matching finished surfaces.
 - a. Control, expansion, and soft joints in masonry.
 - b. Joints between concrete and other materials.
 - c. Joints between metal frames and other materials.
 - d. Other exterior joints for which no other sealant is indicated.
- B. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C834, single component, paintable.
1. Standard colors matching finished surfaces.
 - a. Interior wall and ceiling control joints.
 - b. Joints between door and window frames and wall surfaces.
 - c. Other interior joints for which no other type of sealant is indicated.
- C. Tile Sealant: White silicone; ASTM C920, Uses M and A; single component, mildew resistant.
1. Omni Plus manufactured by Someborn.
 2. Applications: Use for:
 - a. Joints between plumbing fixtures and floor and wall surfaces.
 - b. Joints between kitchen and bath countertops and wall surfaces.
 - c. Joints between gypsum wall board and tile.
- D. Acoustical Sealant: Butyl or acrylic sealant; ASTM C920, Grade NS, Class 12-1/2, Uses M and A; single component, solvent release curing, non-skinning.
1. Tremstop Acrylic manufactured by Tremco.
 2. Applications: Use for concealed locations only:
 - a. Sealant bead between top stud runner and structure and between bottom stud track and floor.
- E. Interior Floor Joint Sealant: Polyurethane, self-leveling; ASTM C920, Grade P, Class 25, Uses T, M and A; single component.
1. Approved by manufacturer for wide joints up to 1-1/2 inches.
 2. Standard colors matching finished surfaces.
- F. Concrete Paving Joint Sealant: Polyurethane, self-leveling; ASTM C920, Class 25, Uses T, M and A; single component.
1. Gray color.
 2. Thiokol manufactured by Morton Polymer Systems.
 3. Applications: Use for:
 - a. Joints in sidewalks and vehicular paving.

2.2 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.

- C. Joint Backing: Round foam rod compatible with sealant; ASTM D1056, sponge or expanded rubber oversized 30 to 50 percent larger than joint width; Everlastic manufactured by Williams Products, Inc.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate surfaces and joint openings are ready to receive work.
- B. Verify that joint backing and release tapes are compatible with sealant.

3.2 PREPARATION

- A. Remove loose materials and foreign matter, which might impair adhesion of sealant.
- B. Clean and prime joints in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Protect surrounding elements of the work of this section from damage or disfiguration.

3.3 INSTALLATION

- A. Perform installation in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Perform acoustical sealant application work in accordance with ASTM C919.
- D. Measure joints dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
- E. Install bond breaker where joint backing is not used.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- H. Tool joints concave.
- I. Precompressed Foam Sealant: Do not stretch; avoid joints except at corners, ends, and intersections; install with face 1/8 to 1/4 inch below adjoining surface.
- J. Compression Gaskets: Avoid joints except at ends, corners, and intersections; seal all joints with adhesive; install with face 1/8 to 1/4 inch below adjoining surface.

3.4 CLEANING

- A. Section 01700 - Contract Closeout: Cleaning installed work.
- B. Clean adjacent soiled surfaces.

3.5 PROTECTION OF FINISHED WORK

- A. Section 01700 - Contract Closeout: Protecting installed work.
- B. Protect sealant until cured.

END OF SECTION