Part 1 General

1.1 REFERENCES

.1 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-51.33, Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction.

.2 CAN/CGSB-51.34, Vapour Barrier, Polyethylene Sheet, for Use in Building Construction.

1.2 SUBMITTALS

.1 Product Data:

.1 Submit manufacturer's printed product literature, specifications and datasheet and include:

.1 Product characteristics.

.2 Performance criteria.

.3 Limitations.

.2 Quality assurance submittals:

.1 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

.2 Instructions: submit manufacturer's installation instructions and comply with written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

Part 2 Products

2.1 SHEET VAPOUR BARRIER

.1 Polyethylene film: to CAN/CGSB-51.34, 0.15 mm thick.

2.2 ACCESSORIES

.1 Joint sealing tape: air resistant pressure sensitive adhesive tape, type recommended by vapour barrier manufacturer, 50 mm wide for lap joints and perimeter seals, 25 mm wide elsewhere.

.2 Sealant: acoustical sealant compatible with vapour retarder materials, recommended by vapour retarder manufacturer.

.3 Staples: minimum 6 mm leg.

.4 Moulded box vapour barrier: factory-moulded polyethylene box for use with recessed electric switch and outlet device boxes.

Part 3 Execution

3.1 INSTALLATION

.1 Ensure services are installed and inspected prior to installation of retarder.

.2 Install sheet vapour retarder on warm side of exterior wall, ceiling, and floor assemblies to form continuous retarder.

.3 Use sheets of largest practical size to minimize joints.

.4 Inspect for continuity. Repair punctures and tears with sealing tape before work is concealed.

3.2 EXTERIOR SURFACE OPENINGS

.1 Cut sheet vapour retarder to form openings and ensure material is lapped and sealed to frame.

3.3 PERIMETER SEALS

.1 Seal perimeter of sheet vapour barrier as follows:

.1 Apply continuous bead of sealant to substrate at perimeter of sheets.
.2 Lap sheet over sealant and press into sealant bead.
.3 Install staples through lapped sheets at sealant bead into wood substrate.
.4 Ensure that no gaps exist in sealant bead. Smooth out folds and ripples occurring in sheet over sealant.

3.4 LAP JOINT SEALS

.1 Seal lap joints of sheet vapour barrier as follows:

.1 Attach first sheet to substrate.
.2 Apply continuous bead of sealant over solid backing at joint.
.3 Lap adjoining sheet minimum 150 mm and press into sealant bead.
.4 Install staples through lapped sheets at sealant bead into wood substrate.
.5 Ensure that no gaps exist in sealant bead. Smooth out folds and ripples occurring in sheet over sealant.

3.5 ELECTRICAL BOXES

.1 Seal electrical switch and outlet device boxes that penetrate vapour barrier as follows:

.1 Install moulded box vapour barrier.
.2 Apply sealant to seal edges of flange to main vapour barrier and seal wiring penetrations through box cover.

3.6 CLEANING

.1 Upon completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Materials and installation for ethylene propylene diene monomer (EPDM) roofing for conventional roofing system.

1.2 REFERENCES

.1 American Society for Testing and Materials International, (ASTM).

.1 ASTM C36/C36M-[01], Standard Specification for Gypsum Wallboard.

.2 Canadian General Standards Board (CGSB).

.1 CGSB 37-GP-52M-[84], Roofing and Waterproofing Membrane, Sheet Applied, Elastomeric.

.2 CAN/CGSB-51.34-[M86(R1988)], Vapour Barrier, Polyethylene Sheet for Use in Building Construction.

.3 Canadian Roofing Contractors' Association (CRCA).

.1 CRCA Roofing Specification Manual 1997.

.4 Department of Justice Canada (Jus).

.1 Canadian Environmental Protection Act (CEPA), 1999.

.5 Factory Mutual (FM Global).

.1 FM Approval Standard # 4470-[86], Class 1 Roof Covers.

.6 Health Canada/Workplace Hazardous Materials Information System (WHMIS).

.1 Material Safety Data Sheets (MSDS).

.7 National Research Council Canada (NRC)/Institute for Research in Construction (IRC) - Canadian Construction Materials Centre (CCMC).

.1 CCMC-[2002], Registry of Product Evaluations.

.8 Transport Canada (TC).

.1 Transportation of Dangerous Goods Act (TDGA), 1992.

.9 Underwriters' Laboratories of Canada (ULC).

.1 CAN/ULC-S701-[01], Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.

.2 CAN/ULC-S704-[2001], Thermal Insulation, Polyurethane and Polyisocyanurate Boards, Faced.

1.3 SUBMITTALS

.1 Submit proof of manufacturer's CCMC Listing and listing number to the Contract administrator.

.2 Manufacturer's Instructions: Provide to indicate special handling criteria, installation sequence, cleaning procedures.

1.4 PRODUCT DATA

.1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.

.2 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 02 61 33 - Hazardous Materials.

.3 Submit product data sheets for all products to be used. Include:

.1 Product characteristics.

.2 Performance criteria.

.3 Limitations.

1.5 SHOP DRAWINGS

.1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.

.2 Indicate flashing, control joints, tapered insulation, penetrations, field fabricated seams details.

.3 Provide layout for tapered insulation.

1.6 DELIVERY, STORAGE AND HANDLING

.1 Deliver, handle, store and protect materials in accordance with Section 01 61 00 - Common Product Requirements.

.2 Provide and maintain dry, off-ground weatherproof storage.

.3 Store materials on supports to prevent deformation.

.4 Remove only in quantities required for same day use.

.5 Store uncured flashing and jointing materials to prevent premature curing and freezing.

.6 Store insulation protected from sunlight and weather and deleterious materials.

.7 Store roofing materials in accordance with manufacturer's written instructions, to prevent damage or loss of performance.

1.7 PROJECT/SITE ENVIRONMENT REQUIREMENTS

.1 Temperature, relative humidity, moisture content.

.1 Apply EPDM membrane only when surfaces and ambient temperatures are within manufacturers' prescribed limits.

.2 Do not install EPDM membrane when air and substrate temperature remains below 5 degrees C in accordance with manufacturer's recommendations or when wind chill gives equivalent cooling effect.

.3 Install EPDM membrane on dry substrate, free of snow and ice. Use only dry materials and apply only during weather that will not introduce moisture into system.

.2 Safety: Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of asphalt, sealing compounds, primers and caulking materials.

1.8 WARRANTY

.1 Contractor hereby warrants that Ethylene Propylene Diene Monomer Roofing and membrane flashings will stay in place and remain leakproof in accordance with General Conditions for 60 months.

Part 2 Products

2.1 COMPATIBILITY

.1 Compatibility between components of system and adjacent materials is essential. Provide a written declaration to the Contract Administrator stating that all materials and components, as assembled in system, meet this requirement.

2.2 DECK COVERING

.1 Gypsum board: to ASTM C36/36M, Water-resistant 12.7 mm thick.

2.3 VAPOUR RETARDER

.1 Polyethylene: to CAN/CGSB-51.34, Type 1, 0.15 mm thick.

2.4 MEMBRANE

.1 Ethylene propylene diene monomer (EPDM sheet membrane): to CGSB 37-GP-52M.

.1 Type 1, Class A, 1.6 mm thick, non-reinforced membrane (black) for use in fully adhered system.

.2 Self-curing, EPDM based membrane for use as flashing as required by the membrane manufacturer.

.2 Acceptable manufacturers:

.1 Carlise SynTec Incorporated, Carlisle Corporation PA

.2 Firestone Building Products Division, BFS Diversified Products

2.5 POLYSTYRENE INSULATION

.1 Rigid Extruded polystyrene (XPS) insulation to CAN/ULC-S701Type 2 thickness 150 mm (minimum) and tapered to suit roof slope.

2.6 SEALERS

.1 Use sealant materials compatible with the roofing materials, as recommended by the membrane manufacturer.

.2 Non-staining, water resistant, gun grade urethane or silicone salant as approved by the membrane manufacturer.

2.7 FASTENERS

.1 Sheathing to steel deck: No.10 flat head, self tapping, Type A or AB, cadmium plated screws.

.2 Insulation to substrate: fasteners and plates must meet FM Approval Standard #4470 for wind uplift and corrosion resistance.

.3 Membrane to substrate: fasteners and spacing as recommended by manufacturer. The membrane shall be secured to the roof deck at the perimeter and large penetrations.

2.8 ADHESIVES, TAPES AND PRIMERS

.1 Adhesive, tapes and primers, in accordance with manufacturer's recommendations.

2.9 SOURCE QUALITY CONTROL

.1 Submit laboratory test reports in accordance with Section 01 45 00 - Quality Control.

Part 3 Execution

3.1 WORKMANSHIP

.1 Do roofing work in accordance with applicable, standard in CRCA Roofing Specifications Manual.

.2 Do work in accordance with elastomeric membrane manufacturer's printed application instructions except where specified otherwise.

3.2 SUBSTRATE EXAMINATION

.1 Examine substrates and immediately inform the Contract Administrator in writing of defects.

.2 Prior to beginning Work ensure:

.1 Substrates are firm, straight, smooth, dry, free of snow, ice or frost, and swept clean of dust and debris.

.2 Roof openings and penetrations are in place.

.3 Curbs have been built.

.4 Drains have been installed at proper elevations relative to finished surfaces.

.5 Plywood and lumber nailer plates have been installed to walls and parapets as indicated.

3.3 PROTECTION

.1 Cover walls, walks, sloped roofs and adjacent work where materials hoisted or used.

.2 Use warning signs and barriers. Maintain in good order until completion of Work.

.3 Dispose of rain water away from face of building until drains or hoppers installed and connected.

.4 Protect from traffic and damage. Comply with precautions deemed necessary by the Contract Administrator.

.5 Place plywood runways over work to enable movement of material and other traffic.

.6 At end of each day's work or when stoppage occurs due to inclement weather, provide protection for completed Work and materials out of storage.

.7 Seal and ballast exposed edges.

.8 If metal connectors used, treat connectors and decking with rust proofing or galvanization.

3.4 DECK SHEATHING

.1 Mechanically fasten Gypsum Board Sheathing to steel deck with reversible mechanical attachments /screws spaced 400 mm on centre each way.

.2 Place with long axis of each sheet transverse to steel deck ribs, with end joints staggered and fully supported on ribs.

3.5 VAPOUR RETARDER (STEEL DECK)

.1 Adhere laminated vapour retarder using solvent based adhesive as per manufacturer's instructions.

3.6 EXPOSED MEMBRANE APPLICATION

.1 Tapered insulation application.

.1 Install tapered insulation as second insulation layer, in accordance with shop drawings. Stagger joints between layers 150 mm minimum.

.2 Insulation: mechanically fastened application.

.1 Mechanically fasten insulation using screws and pressure distribution plates / reversible mechanical attachments.

.2 Number and pattern of screws per board to meet Factory Mutual requirements.

.3 Place boards in parallel rows with ends staggered, and in firm contact with one another.

.4 Cut end boards to suit.

.3 Membrane, adhered, exposed application.

.1 Position membrane over insulation starting at highest point.

.2 Allow membrane to relax for 1/2 hour.

.3 Apply adhesive to membrane and substrate in accordance with manufacturer's written instructions.

.4 Lap joints.

.1 Clean both mating surfaces, apply primer and splicing contact cement in accordance with manufacturer's written instructions.

.2 Apply double-sided adhesive tape in accordance with manufacturer's written instructions.

.3 Solvent clean edge and apply lap sealant.

.4 Perimeter securement with adhesive / mechanical fastened in accordance with manufacturer's written instructions.

.5 Edge securement.

.1 Attach fastening strips to mechanically secure membrane. Ensure screws penetrate into deck or wood nailers.

.2 Adhesive recommended by manufacturer.

.6 Flashings.

.1 Install cured or uncured EPDM membrane flashings in accordance with manufacturer's written instructions.

.7 Penetrations.

.1 Install drain pans, vent stack covers and other penetration flashings and seal to membrane in accordance with manufacturer's recommendations and details.

3.7 FIELD QUALITY CONTROL

.1 At the completion of roofing work there will be a joint meeting between the Owner, Contract Administrator, Roofing Contractor and Authorized representative of the Roof Membrane Manufacturer at the job site for a field inspection of all roof surfaces to determine the extent of any remedial work required prior to acceptance of the work by the Contract Administrator and the Owner

.2 All penetration through the roof shall be the responsibility of the Roofing contractor..

3.8 PROTECTION OF COMPLETED WORK

.1 Ensure membrane is undamaged before application of protection board.

3.9 CLEANING

.1 Clean Work in accordance with Section 01 74 11 - Cleaning.

.2 Clean to the Contract Administrator’s approval, soiled surfaces, spatters, and damage caused by Work of this Section.

.3 Check drains to ensure cleanliness and proper function, and remove debris, equipment and excess material from site.

END OF SECTION

Part 1 General

1.1 Work Included

.1 Prefinished Metal Cap Flashing

1.2 REFERENCES

.1 American Society for Testing and Materials International (ASTM)

.1 ASTM A653/A653M-[07], Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

.2 Canadian Roofing Contractors Association (CRCA)

.1 Roofing Specifications Manual [1997].

.3 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-51.32-[M77], Sheathing, Membrane, Breather Type.

1.3 Existing Conditions/Protection

.1 Exercise care when working on or about roof surfaces to avoid damaging or puncturing membrane or flexible flashings.

.2 Place plywood panels on roof surfaces to Work of this section and access routes. Keep in place until completion of work.

1.4 SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's printed product literature for sheet metal flashing systems materials, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Shop Drawings:

.1 Shop drawings: submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.

.4 Quality assurance submittals: submit following in accordance with Section 01 45 00 - Quality Control.

.1 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, cleaning procedures.

.2 Manufacturer's Field Reports: submit to manufacturer's written reports within 3 days of review, verifying compliance of Work, as described in PART 3, FIELD QUALITY CONTROL.

1.5 QUALITY ASSURANCE

.1 Pre-Installation Meetings: convene pre-installation meeting one week prior to beginning work of this Section and on-site installation, with contractor's representative and the Contract Administrator.

.1 Verify project requirements.

.2 Review installation and substrate conditions.

.3 Co-ordination with other building subtrades.

.4 Review manufacturer's installation instructions and warranty requirements.

1.6 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.

.2 Store covered, off ground and handle by methods that prevent damage from twisting, bending and rubbing.

.3 Protect flashings and finish from impact and scraping. Cover surfaces susceptible to damage.

1.7 Job Conditions

.1 Prevent damage to adjoining wall surfaces and roofing.

Part 2 Products

2.1 SHEET METAL MATERIALS

.1 Zinc coated steel sheet: Minimum 24 gage, commercial quality to ASTM A653/A653M, with Z275 designation zinc coating.

2.2 PREFINISHED STEEL SHEET

.1 Zinc coated steel sheet: Minimum 24 gage, commercial quality to ASTM A653/A653M, with Z275 designation zinc coating. pre-painted with baked on enamel colours of proven durability for exterior exposure to CSSBI Technical Bulletin No.7, 5000 Series.

2.3 ACCESSORIES

.1 Isolation coating: alkali resistant bituminous paint. “Top services Thick Black” by Glidden

.2 Rubber –asphalt sealing compound : conforming to requirements of CGSB 37 – GP-5M.

.3 Cleats: of same material, and temper as sheet metal, minimum 50 mm wide. Thickness same as sheet metal being secured.

.4 Fasteners: of same material as sheet metal, to CSA B111, ring thread/ flat head roofing nails of length and thickness suitable for metal flashing application.

.5 Washers: of same material as sheet metal, 1 mm thick with rubber packings.

.6 Solder: to ASTM B32, alloy composition 50% Tin and 50% lead .

.7 Flux: Commercial quality as recommended by sheet metal manufacturer

.8 Underlay for Metal Flashing: No.15 asphalt felt in accordance with CSA A123.3-M.

.9 Touch-up paint: as recommended by prefinished material manufacturer.

.10 Joint Sealant : install joint sealant in accordance with Specification 079210

2.4 FABRICATION

.1 Fabricate metal flashings and other sheet metal work in accordance with applicable CRCA 'FL' series details as indicated.

.2 Form pieces in 2400 mm maximum lengths. Make allowance for expansion at joints with "S" lock seams maintaining a 22 mm lap on all joints .

.3 Hem exposed edges on underside 13 mm. Mitre and seal corners with sealant.

.4 Fabricate cap flashings to lap 100 mm over base flashings.

.5 All sections to be flat lock type except corners. Fabricate corners minimum 460 mm, mitred, soldered or welded as one piece.

.6 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.

.7 Provide gravel stops with 125 mm minimum deck flange and 110 mm minimum fascia.

.8 Form gum boxes from 0.71 mm galvanised steel with 75 mm minimum upstand and 100 mm one piece flanges. Solder joints. Make pans wider than member passing through roof membrane by 50 mm minimum on all sides.

.9 Supply splash pans from 0.71 mm galvanised steel.

.10 Fabricate roof scuppers from 0.71 mm pre-painted galvanised sheet steel with one piece deck flange 150 mm minimum. Contour scupper to cant strips.

.11 Backpaint flashing with bituminous paint where expected to be in contact with cementitious materiasl or dissimilar metals.

Part 3 Execution

3.1 EXAMINATION

.1 A Prior to commencing installation, thoroughly examine other work upon which this Work is dependent. Report any deficiencies discovered, propose adjustments to the engineer and obtain written authorization before proceeding.

3.2 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.3 INSTALLATION

.1 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.

.2 Back-paint sheet metal with bituminous isolation coating on surfaces in contact with concrete, masonry cementitious materials or dissimilar metal.

.3 Set flashings in place not later than seven days after installation of the membrane on any particular section of the roof.

.4 Install flashings with maximum distances between joints of 1200 mm for parapet face flashings, 1200 mm for cap flashings, 300 mm wide or greater on the top surface, and 2400 mm for all other flashings.

.5 Insert metal flashings into reglets to form tight joint and caulk into reglet with sealant compound.

.6 Fasten flashings using 0.75 mm thick by 150 mm long anchor clips on the fascia face and screws or annular ringed nails on the opposite face.

.7 Fasten flashings up to 1200 mm in length with galvanised steel clips through the extended "S" locks and in addition at mid length for flashings over 1200 mm in length.

.8 Fit flashings together so that one end of each section is free to move in the joint.

.9 Locate flashing screws at 200 mm minimum above roof membrane.

.10 Fill gum boxes with plastic cement in two equal lifts and separate lifts with one ply of organic felt, precision cut to fit box.

.11 Apply two plys of organic felt stripping over flanges of gum box and extend down face of curb. Reinforce stripping with a 2 ply of woven glass cloth.

.12 Bed and secure in place 0.71 mm thick, 600 mm x 600 mm x 25 mm high lip, galvanised steel splash pans to roof with hot asphalt at end of downspouts spilling out on roof.

.13 Set gravel stop in place with nails on bed of plastic cement. Apply a strip of organic felt in plastic cement over gravel stop. Mop over a second strip of organic felt reinforced with 2-ply glass cloth.

3.4 FIELD QUALITY CONTROL

.1 Manufacturer's Field Services:

.1 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

3.5 CLEANING

.1 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

.2 Leave work areas clean, free from grease, finger marks and stains.

END OF SECTION

Part 1 General

1.1 REFERENCES

.1 American Society for Testing and Materials International, (ASTM)

.1 ASTM C919, Standard Practice for Use of Sealants in Acoustical Applications.

.2 Canadian General Standards Board (CGSB)

.1 CGSB 19-GP-5M, Sealing Compound, One Component, Acrylic Base, Solvent Curing (incorporating Amendment No. 1).

.2 CAN/CGSB-19.13, Sealing Compound, One-component, Elastomeric, Chemical Curing.

.3 CGSB 19-GP-14M, Sealing Compound, One Component, Butyl-Polyisobutylene Polymer Base, Solvent Curing.

.4 CAN/CGSB-19.17, One-Component Acrylic Emulsion Base Sealing Compound.

.5 CAN/CGSB-19.24, Multi-component, Chemical Curing Sealing Compound.

.3 General Services Administration (GSA) - Federal Specifications (FS)

.1 FS-SS-S-200, Sealants, Joint, Two-Component, Jet-Blast-Resistant, Cold Applied, for Portland Cement Concrete Pavement.

1.2 SUBMITTALS

.1 Submit product data.

.2 Manufacturer's product to describe.

.1 Caulking compound.

.2 Primers.

.3 Sealing compound, each type, including compatibility when different sealants are in contact with each other.

.3 Submit manufacturer's instructions.

.1 Instructions to include installation instructions for each product used.

1.3 DELIVERY, STORAGE, AND HANDLING

.1 Deliver, handle, store and protect materials in accordance with the manufacturer’s written instructions.

.2 Deliver and store materials in original wrappings and containers with manufacturer's seals and labels, intact. Protect from freezing, moisture, water and contact with ground or floor.

1.4 ENVIRONMENTAL CONDITIONS

.1 Environmental Limitations:

.1 Do not proceed with installation of joint sealants under following conditions:

.1 When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 5 degrees C.

.2 When joint substrates are wet.

.2 Joint-Width Conditions:

.1 Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.

.3 Joint-Substrate Conditions:

.1 Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

.4 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Material Safety Data Sheets (MSDS) acceptable to Labour Canada.

.5 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.

Part 2 Products

2.1 SEALANT MATERIALS

.1 Type 1 – Silicones One Part: to CAN/CGSB-19.13. Acceptable material: Dow Corning 795, GE Silpruf, Tremco Spectrum 2.

.2 Type 2 – Silicones One Part: to CAN/CGSB-19.22-M89 (Mildew resistant). Acceptable material: Dow Corning 786.

.3 Type 3 – Acrylic Latex One Part: to CGSB 19-GP-5M. Acceptable material: Tremco 100 Latex Caulk, GE Acrylasil Latex Caulk.

.4 Type 4 – Butyl: to CGSB 19-GP-14M. Acceptable material: Tremco Butyl Sealanthere

2.2 ACCESSORIES

.1 Preformed Compressible and Non-Compressible back-up materials.

.1 High-Density Foam. Extruded closed cell polyvinyl chloride (PVC), extruded polyethylene, closed cell, Shore A hardness 20, tensile strength 140 to 200 kPa, extruded polyolefin foam, 32 kg/m density, or neoprene foam backer, size as recommended by manufacturer.

.2 Bond Breaker Tape. Polyethylene bond breaker tape that will not bond to sealant.

.2 Joint cleaner: non-corrosive and non-staining type, compatible with joint forming materials and sealant recommended by sealant manufacturer.

.3 Primer: as recommended by manufacturer.

2.3 SEALANT SELECTION

.1 Perimeters of exterior openings where frames meet exterior facade of building: Sealant Type 1.

.2 Miscellaneous flashing joints and metal cladding: Sealant Type 1.

.3 Perimeter of washroom fixtures (e.g., sinks, urinals, water closets, vanities, etc.): Sealant Type 2.

.4 Interior paintable joints: Sealant Type 3.

.5 Bedding aluminum doorsills: Sealant Type 4.

2.4 JOINT CLEANER

.1 Non-corrosive and non-staining type, compatible with joint forming materials and sealant recommended by sealant manufacturer.

.2 Primer: as recommended by manufacturer.

Part 3 Execution

3.1 PROTECTION

.1 Protect installed Work of other trades from staining or contamination.

3.2 SURFACE PREPARATION

.1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.

.2 Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair Work.

.3 Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.

.4 Ensure joint surfaces are dry and frost free.

.5 Prepare surfaces in accordance with manufacturer's directions.

3.3 PRIMING

.1 Where necessary to prevent staining, mask adjacent surfaces prior to priming and caulking.

.2 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to caulking.

3.4 BACKUP MATERIAL

.1 Apply bond breaker tape where required to manufacturer's instructions.

.2 Install joint filler to achieve correct joint depth and shape, with approximately 30% compression.

3.5 MIXING

.1 Mix materials in strict accordance with sealant manufacturer's instructions.

3.6 APPLICATION

.1 Sealant.

.1 Apply sealant in accordance with manufacturer's written instructions.

.2 Mask edges of joint where irregular surface or sensitive joint border exists to provide neat joint.

.3 Apply sealant in continuous beads.

.4 Apply sealant using gun with proper size nozzle.

.5 Use sufficient pressure to fill voids and joints solid.

.6 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.

.7 Tool exposed surfaces before skinning begins to give slightly concave shape.

.8 Remove excess compound promptly as work progresses and upon completion.

.2 Curing.

.1 Cure sealants in accordance with sealant manufacturer's instructions.

.2 Do not cover up sealants until proper curing has taken place.

.3 Cleanup.

.1 Clean adjacent surfaces immediately and leave Work neat and clean.

.2 Remove excess and droppings, using recommended cleaners as work progresses.

.3 Remove masking tape after initial set of sealant.

END OF SECTION