

PART 1 - GENERAL

<u>1.1 Related Requirements</u>	.1	Section 07 52 00 - Modified Bituminous Membrane Roofing: caulking associated with roofing.
	.2	Section 07 62 00 - Sheet Metal Flashing and Trim: caulking associated with metal flashings.
<u>1.2 References</u>	.1	Canadian General Standards Board (CGSB) .1 CAN/CGSB-19.24-M90, Multi-component, Chemical Curing Sealing Compound.
<u>1.3 Submittals</u>	.1	Submit in accordance with Section 01 33 00 - Submittal Procedures.
	.2	Manufacturer's product shall describe. .1 Required primers. .2 Sealing compound.
	.3	Submit manufacturer's instructions for each product used.
<u>1.4 Delivery, Storage, and Handling</u>	.1	Deliver, handle, store and protect materials in accordance with Section 01 61 00 - Common Product Requirements.
	.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.
<u>1.5 Project Conditions</u>	.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°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.

1.6 Environmental Requirements

- .1 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.
- .2 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 Sealants and caulking compounds shall:
  - .1 meet or exceed all applicable governmental and industrial safety and performance standards; and
  - .2 be manufactured and transported in such a manner that all steps of the process, including the disposal of waste products arising therefrom, will meet the requirements of all applicable governmental acts, by laws and regulations including, for facilities located in Canada, the fisheries Act and the Canadian Environmental Protection Act (CEPA).
- .2 Sealant and caulking compounds must not be formulated or manufactured with: aromatic solvents, fibrous talc or asbestos, formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium, barium or their compounds, except barium sulfate.
- .3 Sealant and caulking compounds must contain total VOC content (volatile organic compounds) that do not exceed the requirements of the California South Coast Air Quality Management District (SCAQMD) Rule #1168.

- .4 Sealant and caulking compounds must be accompanied by detailed instructions for proper application so as to minimize health concerns and maximize performance, and information describing proper disposal methods.
  - .5 In the selection of the products and materials of this section preference will be given to those with the following characteristics: Water based, water soluble, water clean-up, non-flammable, low Volatile Organic Compound (VOC) content, manufactured without compounds which contribute to ozone depletion in the upper atmosphere, manufactured without compounds which contribute to smog in the lower atmosphere, does not contain methylene chloride, does not contain chlorinated hydrocarbons.
- 2.2 Sealant Material Designations
- .1 Urethanes Two Part.
    - .1 Non-Sag to CAN/CGSB 19.24, Type 2, Class B.
    - .2 Colour: as selected by Departmental Representative.
  - .2 Preformed Compressible and Non-Compressible back-up materials.
    - .1 Polyethylene, Urethane, Neoprene or Vinyl Foam.
      - .1 Extruded closed cell foam backer rod.
      - .2 Size: oversize 30 to 50 %.
    - .2 Bond Breaker Tape.
      - .1 Polyethylene bond breaker tape which will not bond to sealant.
- 2.3 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 Sealant  
Application

- .1 Apply sealant where indicated.
- .2 Apply sealant in accordance with manufacturer's written instructions.
- .3 Mask edges of joint where irregular surface or sensitive joint border exists to provide neat joint.
- .4 Apply sealant in continuous beads.

- .5 Apply sealant using gun with proper size nozzle.
- .6 Use sufficient pressure to fill voids and joints solid.
- .7 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
- .8 Tool exposed surfaces before skinning begins to give slightly concave shape.
- .9 Remove excess compound promptly as work progresses and upon completion.

### 3.7 Curing

- .1 Cure sealants in accordance with sealant manufacturer's instructions.
- .2 Do not cover up sealants until proper curing has taken place.

### 3.8 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