
JOINT SEALANT

PART 1 GENERAL**1.1 Related Work**

- .1 All Division 1 Specification Sections
- .2 Section [01330](#) Submittals
- .3 Section [01450](#) Quality Control & Inspection

1.2 References

- .1 Canadian General Standards Board (CGSB):
 - .1 CAN/CGSB-19.13, Sealant Compound, one-component, Elastomeric, Chemical Curing.

1.3 Submittals

- .1 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.
 - .4 Installation instructions, surface preparation and product limitations.
- .2 Submit duplicate samples of each type of material and colour.
- .3 Cured samples of exposed sealants for each colour where required to match adjacent material.
- .4 Manufacturer's instructions to include installation instructions for each product used.

1.4 Delivery, Storage, and Handling

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

1.5 Project Conditions

- .1 Environmental Limitations: Do not proceed with installation of joint sealants under the following conditions:
 - .1 When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are

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below 4.4°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.

PART 2 PRODUCTS**2.1 Sealant Materials**

.1 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 sulphate.

.2 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.

2.2 Sealant Material Designations

.1 Silicones One Part

.1 CAN/CGSB-19.13, mildew resistant

.2 Performed 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%

.3 Neoprene or Butyl Rubber

.1 Round solid rod, Shore A hardness 70.

.4 High Density Foam

.1 Extruded closed cell polyvinyl chloride (PVC), extruded polyethylene, closed cell, Shore A hardness 20, tensile

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strength 140 to 200 kPa, extruded polyolefin foam, 32 kg/m³ density, or neoprene foam backer, size as recommended by manufacturer.

- .5 Bond Breaker Tape:
 - .1 Polyethylene bond breaker tape which will not bond to sealant.

2.3 Sealant Selection

- .1 Expansion and control joints in exterior surfaces of poured-in-place concrete walls. Sealant type CAN/CGSB-19.13.
- .2 Control and expansion joints in exterior surfaces of unit masonry walls: Sealant type: CAN/CGSB-19.13.

PART 3 EXECUTION**3.1 Extent Of Work**

- .1 Install sealants in all locations shown on drawings and as detailed on drawings. Caulking contractor to attend a pre-installation meeting to review design and quality issues.
- .2 Install sealant at the perimeter of all precast to precast concrete joints and to other materials in place at time of precast concrete installation.
- .3 Provide a minimum of two (2) continuous beads of sealant at all joint locations. Caulking to be as detailed on drawings.

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.

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3.3 Priming

- .1 Where necessary to prevent staining, mask adjacent surfaces prior to priming and sealing.
- .2 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to sealing.

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 instructions.
 - .2 Mask-edges of joint where irregular surface or sensitive joint 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 bed, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
 - .7 Too 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 Clean-up:

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- .1 Clean adjacent surfaces immediately and leave Work neat and clean.
- .2 Remove access droppings, using recommended cleaners as work progresses.
- .3 Remove masking tape after initial set of sealant.

3.7**Warranty**

- .1 Provide a written guarantee issued to the Owner, stating that caulking work of this section is guaranteed against leakage, cracking, crumbling, melting, shrinkage, running, loss of adhesion, or other failure, staining adjacent surfaces, for a period of **two (2) years** from the date of Certificate of Substantial Performance.

End of Section - 07900