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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | November 13, 2009 | Modified ‘Related Section’ |
| 3 | March 15, 2011 | Minor changes from Legal |
| 4 | June 7, 2012 | Addition of References and Replacement Parts sections to this page. |
| 5 | July 6, 2012 | Change tab settings in page 1-7. |
| 6 | April 23, 2015 | General Formatting |
| 7 | April 7, 2016 | Phase 1 update (AV) |
| 8 | November 29, 2016 | Updated with Legal’s comments (eDOCs #6396349) |
| 9 | January 30, 2017 | Removed all named manufacturers and replaced them with standards. (AV) |
| 10 | March 1, 2017 | Updated for references to NSF 372. (AV) |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

# GEneral

## Related Sections

### *[Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.*

### *Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.*

### *Contractor is responsible for coordination of the Work.*

### *This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]*

### *[List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### [List Sections specifying products installed but not supplied under this Section and indicate specific items.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### [List Sections specifying related requirements.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

#### Section 01060 – Regulatory Requirements

#### Section 01300 – Submittals

## References

### Comply with the latest edition of the following statutes codes and standards and all amendments thereto. *[Consultant to amend all standard references below that have been withdrawn by the CGSB (CAN/CGSB 19.1, 19.2, 19 GP 5M, 19.6, 19.13, 19 GP 14, 19.17, 19.18, 19.20, 19.21, 19.22, and 19.24). Consultant to replace with current standards as applicable to the project]*

#### NSF/ANSI Standard 61, Drinking Water System Components – Health Effects NSF 61 certification for products coming in contact with potable water.

#### NSF 372-2011: Drinking Water System Components – Lead Content

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

##### Material Safety Data Sheets (MSDS).

#### American Society for Testing & Materials (ASTM)

##### ASTM C1193 – 16; Standard Guide for Use of Joint Sealants

## Submittals

### Submit samples in accordance with Section 01300 - Submittals.

### Submit duplicate samples of each type of material and colour.

## Mock-up

### Construct mock-ups in accordance with Section 01300 - Submittals.

### Construct mock-ups to show location, size, shape and depth of joints, complete with back-up material, primer, caulking and sealant. Mock-ups may be part of the finished work.

### Allow a minimum of 2 Working Days for the inspection of the mock-up by the Consultant before proceeding with the sealant work.

## Quality Assurance

### Arrange for the sealant manufacturer’s technical representative to visit the Site prior to the commencement of sealing, to review with the Contractor, the installer and the Consultant, the installation procedures to be adopted, the conditions under which the Work will be carried out, and to review the surfaces and joints to be sealed.

### Review the weather conditions under which the Work will be done, the anticipated frequency of joint movement, the shape factor of the joint, durometer hardness, slump, and the curing characteristics of the material specified, joint characteristics as-built, and a sample of the sealed joint in order to determine an acceptable level of workmanship.

### Submit the review comments in writing to the Consultant.

### Submit certification that the sealants which may come into contact with potable water are suitable and approved for their intended use.

## Delivery, Storage, and Handling

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

## Site Conditions

### Comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding the use, handling, storage, and disposal of hazardous materials; and regarding the labelling and provision of material safety data sheets in a manner acceptable to Ontario Ministry of Labour.

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

### Ventilate the area of Work as directed by the Consultant by use of Contractor- supplied and Consultant approved portable supply and exhaust fans.

## Warranty

### Submit a [\_\_\_\_\_\_] year warranty for the work of this Section against defects in materials and workmanship

### Warranty Period: Commencing upon the date of Substantial Performance of the Work.

## Measurement and Payment

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

# PRODUCTS

## Materials

### Where joint sealing materials come in contact with potable water, the sealant shall be NSF approved with documentation provided to the Consultant*. [Include only those materials specifically intended for use on the project.]*

### Must comply with ASTM 1193 – 16.

### Sealant Type A: Polysulfide Two Part.

#### Self-Leveling confirming to *[CAN/CGSB-19.24 , Consultant to replace withdrawn reference with current standard]* Type 1, Class B, colour [ ].

### Sealant Type B: Polysulfide Two Part.

#### Non-Sag confirming to *[CAN/CGSB-19.24, Consultant to replace withdrawn reference with current standard]* Type 2, Class B, colour [ ].

### Sealant Type C: Urethanes Two Part.

#### Self-Levelling confirming to *[CAN/CGSB-19.24, Consultant to replace withdrawn reference with current standard]* Type 1, Class B, colour [ ].

### Sealant Type D: Urethanes Two Part.

#### Non-Sag confirming to *[CAN/CGSB-19.24, Consultant to replace withdrawn reference with current applicable standard]* Type 2, Class B, colour [ ].

### Sealant Type E: Silicones One Part.

#### conforming to *[CAN/CGSB-19.13, Consultant to replace withdrawn reference with current applicable standard].*

### Sealant Type F: Silicones One Part.

#### conforming to *[CAN/CGSB-19.22, Consultant to replace withdrawn reference with current applicable standard]* (Mildew resistant).

### Preformed Compressible and Non-Compressible Back-up Materials.

#### Polyethylene, Urethane, Neoprene or Vinyl Foam.

##### Extruded open closed cell foam backer rod.

##### Size: oversized 30 to 50 %.

#### 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/m3 density, or neoprene foam backer, size as recommended by the manufacturer.

#### Bond Breaker Tape.

##### Polyethylene bond breaker tape which will not bond to the sealant.

### Cleaning material: Non-corrosive and non-staining type, compatible with joint forming materials and the sealant recommended by the sealant manufacturer.

### Primer: as recommended by the manufacturer of the sealant.

## Sealant Selection

### The following table lists the sealant type acceptable for each joint location. Use as few different sealant types as possible to meet the requirements of Project.

|  |  |
| --- | --- |
| **Joint Locations** | **Sealant Type(s)** |
| **Expansion/Contraction & Control Joints At:** | |
| Concrete Walls (except water-holding & below grade portions of structures) | A,C,D,E |
| Concrete Floor Slabs (except for water-holding structures) | C,D |
| Slabs Subject to Vehicle and Pedestrian Traffic | C,D |
| Masonry Walls | A,C,D |
| Exterior Insulation & Finish System | C |
| Ceramic Tile Floors | C,E,F |
| Ceramic Tile Walls | C,E,F |
| Precast Concrete Wall Panels | C,D |
| **Materials Joints At:** | |
| Metal Door, Window, & Louver Frames (Exterior) | B,C,D |
| Metal Door, Window, & Louver Frames (Interior) | B,C,D |
| Wall Penetrations (Exterior) | B,C,D |
| Wall Penetrations (Interior) | B,C,D |
| Floor Penetrations | A,C,D |
| Ceiling Penetrations | A,C,D |
| Roof Penetrations | D |
| Sheet Metal Flashings | D |
| Sheet Metal Roofing & Siding | D |
| Precast Concrete Wall Panels | A,C,D |
| Glazed Concrete Masonry Unit Joints | E |
| Precast/Prestressed Floor Panels (Interior) | A,C,D |
| Precast/Prestressed Floor & Roof Panels (Exterior) | A,D |
| **Other Joints:** | |
| Threshold Sealant Bed | D |
| Between Counter Tops & Backsplashes | F |
| Around Plumbing Fixtures | F |
| Concrete Form Snap-Tie Holes | C,D,E |

# EXECUTION

## Protection

### Protect the installed work of other trades from staining or contamination.

## Preparation

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

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

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

### Ensure joint surfaces are dry and frost free.

### Prepare surfaces in accordance with the manufacturer's directions.

### Where necessary to prevent staining, mask adjacent surfaces prior to priming and sealing.

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

### Apply bond breaker tape where required in accordance with manufacturer's instructions.

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

## Application

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

### Sealant.

#### Apply sealant in accordance with the manufacturer's written instructions.

#### Mask the edges of the joint where irregular surface or sensitive joint border exists to provide a neat joint.

#### Apply sealant in continuous beads.

#### Apply sealant using a gun with a properly sized nozzle.

#### Use sufficient pressure to fill all voids and joints solid.

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

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

#### Remove any excess compound promptly as work progresses and upon completion.

### Curing.

#### Cure sealants in accordance with the sealant manufacturer's instructions.

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

## Cleaning

### Clean adjacent surfaces immediately and leave work neat and clean.

### Remove excess and droppings, using Region recommended cleaners as the Work progresses.

### Remove masking tape after the initial set of the sealant.

**END OF SECTION**