

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 45 00 - Testing and Quality Control.
- .3 Section 01 61 00 - Common Product Requirements.
- .4 Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .5 Section 03 10 00 - Concrete Forming and Accessories.
- .6 Section 03 30 00 - Cast-in-Place Concrete.

1.2 REFERENCES

- .1 Canadian General Standards Board (CGSB).
 - .1 CAN/CGSB-19.24-M90, Multi-component, Chemical Curing Sealing Compound.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
 - .1 Material Safety Data Sheets (MSDS).

1.3 SUBMITTALS

- .1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature, and data sheets for joint sealant and include product characteristics, performance

criteria, physical size, finish, and limitations.

- .2 Manufacturer's product to describe:
 - .1 Caulking compound;
 - .2 Primers;
 - .2 Sealing compound, each type, including compatibility when different sealants are in contact with each other.
- .3 Submit two (2) copies of WHMIS MSDS in accordance with Section 01 35 28 - Health and Safety Requirements and Section 01 35 43 - Environmental Procedures.

- .3 Manufacturer's Instructions:
 - .1 Submit instructions to include installation instructions for each product used.

1.4 DELIVERY, STORAGE AND HANDLING

- .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.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard, and packaging material in appropriate on-site containers for recycling in accordance with Waste Management Plan.
- .4 Place materials defined as hazardous or toxic in designated containers.
- .5 Handle and dispose of hazardous materials in accordance with the CEPA, TDGA, Regional, and Municipal regulations.
- .6 Unused sealant material must not be disposed of into sewer system, streams, lakes, onto ground, or in other location where it will pose health or environmental hazard.
- .7 Divert unused joint sealing material from landfill to official hazardous material collections site approved by Departmental Representative.
- .8 Empty plastic joint sealer containers are not recyclable. Do not dispose of empty containers with plastic materials destined for recycling.
- .9 Fold up and flatten metal banding and place in designated area for recycling.

1.6 PROJECT
CONDITIONS

- .1 Ambient Conditions:
 - .1 Proceed with installation of joint sealants only when:
 - .1 Ambient and substrate temperature conditions are within limits permitted by joint sealant manufacturer or are above 4.4 degrees Celsius.
 - .2 Joint substrates are dry.
 - .3 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.
- .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.

1.7 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 Health 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 Where sealants are qualified with primers use only those primers.

2.2 SEALANT MATERIAL DESIGNATIONS

- .1 Polysulfide two part:
 - .1 Self-levelling to CAN/CGSB-19.24, Type 1, Class B, colour to match concrete.
- .2 Polysulfide two part:
 - .1 Non-sag to CAN/CGSB-19.24, Type 2, Class B, colour to match concrete.
- .3 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 %.

2.3 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 sealant

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, and embedded impurities.
 - .7 Tool expose 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 Cleaning:

- .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.

.4 Protection:

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by joint sealant installation.

END OF SECTION