

**Part 1            General**

**1.1                GENERAL INSTRUCTIONS**

- .1        Read and be governed by Conditions of the Contract and Sections of Division 1.

**1.2                RELATED SECTIONS**

- .1        Section 01 00 10 - General Instructions.
- .2        Section 01 33 00 - Submittal Procedures.
- .3        Section 01 61 00 - Common Product Requirements.
- .4        Section 01 74 21 - Waste Management.
- .5        Section 02 61 33 – Hazardous Materials.
- .6        Section 09 21 16 - Gypsum Board Assemblies.
- .7        Section 09 22 16 - Non-structural Metal Framing.

**1.3                REFERENCES**

- .1        American Society for Testing and Materials International, (ASTM).
  - .1        ASTM C553-02, Specification for Mineral Fibre Blanket Thermal Insulation for Commercial and Industrial Applications.
  - .2        ASTM C612-04, Standard Specification for Mineral Fiber Block and Board Thermal Insulation.
- .2        Canadian Gas Association (CGA).
  - .1        CAN/CGA-B149.1-05, Natural Gas and Propane Installation Code Handbook.
  - .2        CAN/CGA-B149.2-05, Propane Storage and Handling Code.
- .3        Canadian Standards Association (CSA International).
  - .1        CSA B111-1974(R1998), Wire Nails, Spikes and Staples.
- .4        Environmental Choice Program (EPC).
  - .1        CCD-016-97, Thermal Insulation.
- .5        Underwriters Laboratories of Canada (ULC).
  - .1        CAN/ULC-S604-M91, Type A Chimneys.
  - .2        CAN/ULC-S702-1997, Standard for Mineral Fibre Insulation.

**1.4                SUBMITTALS**

- .1        Product Data:
  - .1        Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.

- .2 Manufacturer's Instructions:
  - .1 Submit manufacturer's installation instructions.

## **1.5 QUALITY ASSURANCE**

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .3 Pre-installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

## **1.6 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Waste Management.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene and corrugated cardboard packaging material in appropriate on-site for recycling in accordance with site waste management program.

## **Part 2 Products**

### **2.1 INSULATION**

- .1 Type 1: Batt and blanket mineral fibre in metal stud wall cavities: to ASTM C553 and CAN/ULC S702.
  - .1 CAN/ULC S702 Type: 1.
  - .2 Density: 40 kg/m<sup>3</sup>.
  - .3 Thickness: as indicated.

### **2.2 ACCESSORIES**

- .1 Nails: galvanized steel, length to suit insulation plus 25mm, to CSA B111.
- .2 Staples: 12mm minimum leg.
- .3 Tape: as recommended by manufacturer.

## **Part 3 Execution**

### **3.1 MANUFACTURER'S INSTRUCTIONS**

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

### **3.2 INSULATION INSTALLATION**

- .1 Install insulation to maintain continuity of thermal protection to building elements and spaces.
- .2 Fit insulation closely around electrical boxes, pipes, ducts, frames and other objects in or passing through insulation.
- .3 Do not compress insulation to fit into spaces.
- .4 Keep insulation minimum 75mm from heat emitting devices such as recessed light fixtures, and minimum 50mm from sidewalls of CAN/ULC-S604 Type A chimneys and CAN/CGA-B149.1 and CAN/CGA-B149.2 Type B and L vents.
- .5 Do not enclose insulation until it has been inspected and approved by Departmental Representative.

### **3.3 CLEANING**

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**END OF SECTION**

**Part 1 General**

**1.1 GENERAL INSTRUCTIONS**

- .1 Read and be governed by Conditions of the Contract and Sections of Division 1.

**1.2 RELATED SECTIONS**

- .1 Section 01 00 10 - General Instructions.
- .2 Section 02 61 33 - Hazardous Materials.
- .3 Fire stopping and smoke seals within electrical assemblies are specified in Divisions 26 and 28.

**1.3 REFERENCES**

- .1 Underwriter's Laboratories of Canada (ULC)
  - .1 ULC-S115-1995, Fire Tests of Firestop Systems.

**1.4 DEFINITIONS**

- .1 Fire Stop Material: device intended to close off opening or penetration during fire or materials that fill openings in wall or floor assembly where penetration is by cables, cable trays, conduits, ducts and pipes and poke-through termination devices, including electrical outlet boxes along with their means of support through wall or floor openings.
- .2 Single Component Fire Stop System: fire stop material that has Listed Systems Design and is used individually without use of high temperature insulation or other materials to create fire stop system.
- .3 Multiple Component Fire Stop System: exact group of fire stop materials that are identified within Listed Systems Design to create on site fire stop system.
- .4 Tightly Fitted; (ref: NBC Part 3.1.9.1.1 and 9.10.9.6.1): penetrating items that are cast in place in buildings of noncombustible construction or have "0" annular space in buildings of combustible construction.
  - .1 Words "tightly fitted" should ensure that integrity of fire separation is such that it prevents passage of smoke and hot gases to unexposed side of fire separation.

**1.5 SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 00 10 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

- .2 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 02 61 33 - Hazardous Materials.
- .3 Shop Drawings:
  - .1 Submit shop drawings to show location, proposed material, reinforcement, anchorage, fastenings and method of installation.
  - .2 Construction details should accurately reflect actual job conditions.
- .4 Quality assurance submittals: submit following in accordance with Section 01 00 10 - Quality Control.
  - .1 Test reports: in accordance with CAN-ULC-S101 for fire endurance and CAN-ULC-S102 for surface burning characteristics.
    - .1 Submit certified test reports from approved independent testing laboratories, indicating compliance of applied fire stopping with specifications for specified performance characteristics and physical properties.
  - .2 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
  - .3 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, cleaning procedures.
  - .4 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.

## **1.6 SAMPLES**

- .1 Submit samples in accordance with Section 01 00 10 - Submittal Procedures.
- .2 Submit duplicate 300 x 300 mm samples showing actual firestop material proposed for project.

## **1.7 QUALITY ASSURANCE**

- .1 Qualifications:
  - .1 Installer: company approved by manufacturer.
- .2 Pre-Installation Meetings: convene pre-installation meeting one week prior to beginning work of this Section, with contractor's representative and the Departmental Representative to:
  - .1 Verify project requirements.
  - .2 Review installation and substrate conditions.
  - .3 Co-ordination with other building sub-trades.
  - .4 Review manufacturer's installation instructions and warranty requirements.
- .3 Site Meetings: as part of Manufacturer's Services described in PART 3 - FIELD QUALITY CONTROL, schedule site visits, to review Work, at stages listed.
  - .1 After delivery and storage of products, and when preparatory Work is complete, but before installation begins.

- .2 Twice during progress of Work at 25% and 60% complete.
- .3 Upon completion of Work, after cleaning is carried out.

## **1.8 DELIVERY, STORAGE AND HANDLING**

- .1 Packing, shipping, handling and unloading:
  - .1 Deliver, store and handle materials in accordance with Section 01 00 10 - Common Product Requirements.
  - .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.
  - .3 Deliver materials to the site in undamaged condition and in original unopened containers, marked to indicate brand name, manufacturer, and ULC markings.
- .2 Storage and Protection:
  - .1 Store materials indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Replace defective or damaged materials with new.

## **1.9 WASTE MANAGEMENT AND DISPOSAL**

- .1 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .2 Collect and separate for disposal paper, plastic, polystyrene and corrugated cardboard packaging material in appropriate on-site bins for recycling in accordance with site waste management program.

## **Part 2 Products**

### **2.1 GENERAL**

- .1 Products and manufacturers specified establish performance and quality required and are not intended to restrict submission by other manufacturers.
- .2 Acceptance of Products from other manufacturers will be subject to review by the Departmental Representative, for conformity with the specifications and meeting the physical characteristics of the specified Products. Include compliance with referenced standards. Submittals which do not include adequate data for the product evaluation will not be considered.
- .3 If unapproved substitute products are included in the bid, the specified Products shall be provided without additional compensation.

### **2.2 MATERIALS**

- .1 Fire stopping and smoke seal systems: in accordance with ULC-S115.
  - .1 Asbestos-free materials and systems capable of maintaining an effective barrier against flame, smoke and gases in compliance with requirements of ULC-S115 and not to exceed opening sizes for which they are intended [and conforming to specified special requirements described in PART 3.

- .2 Firestop system rating: in accordance with NBC.
- .2 Service penetration assemblies: certified by ULC in accordance with ULC-S115 and listed in ULC Guide No.40 U19.
- .3 Service penetration firestop components: certified by ULC in accordance with ULC-S115 and listed in ULC Guide No.40 U19.13 and ULC Guide No.40 U19.15 under the Label Service of ULC.
- .4 Fire-resistance rating of installed fire stopping assembly in accordance with NBC.
- .5 Fire stopping behind electrical boxes in fire rated partitions.
- .6 Fire stopping and smoke seals at openings intended for ease of re-entry such as cables: elastomeric seal.
- .7 Fire stopping and smoke seals at openings around penetrations for pipes and conduit requiring sound and vibration control: elastomeric seal.
- .8 Primers: to manufacturer's recommendation for specific material, substrate, and end use.
- .9 Water (if applicable): potable, clean and free from injurious amounts of deleterious substances.
- .10 Damming and backup materials, supports and anchoring devices: to manufacturer's recommendations, and in accordance with tested assembly being installed as acceptable to authorities having jurisdiction.
- .11 Sealants for vertical joints: non-sagging.
  - .1 Sealants must have a VOC limit of less than 250 g/L, as per SCAQMD Rule 1168, October 2003. Provide MSDS sheet or other documentation indicating VOC content of sealant used.

### **Part 3 Execution**

#### **3.1 MANUFACTURER'S INSTRUCTIONS**

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

#### **3.2 PREPARATION**

- .1 Examine sizes and conditions of voids to be filled to establish correct thicknesses and installation of materials. Ensure that substrates and surfaces are clean, dry and frost free.
- .2 Prepare surfaces in contact with fire stopping materials and smoke seals to manufacturer's instructions.
- .3 Mask where necessary to avoid spillage and over coating onto adjoining surfaces; remove stains on adjacent surfaces.

### **3.3 INSTALLATION-GENERAL**

- .1 Install fire stopping and smoke seal material and components in accordance with ULC certification and manufacturer's instructions.
- .2 Seal holes or voids made by through penetrations, poke-through termination devices, and unpenetrated openings or joints to ensure continuity and integrity of fire separation are maintained.
- .3 Provide temporary forming as required and remove forming only after materials have gained sufficient strength and after initial curing.
- .4 Tool or trowel exposed surfaces to a neat finish.
- .5 Remove excess compound promptly as work progresses and upon completion.

### **3.4 INSTALLATION - ELECTRICAL PENETRATION FIRESTOPPING AND SMOKE SEAL**

- .1 Apply firestopping and smoke seal to mechanical and electrical through penetrations.
- .2 Apply 13mm bead of fire rated sealant at interface of retaining angles around fire dampers where retaining angles meet fire rated walls, floors, or ceilings.
- .3 Apply fire rated sealant to unpenetrated openings and sleeves installed for future use through fire rated assemblies.
- .4 Where necessary, remove insulation from insulated pipes and ducts where pipes or ducts penetrate a fire separation, unless ULC certified assembly permits such insulation to remain within the fire rated assembly.

### **3.5 INSPECTION**

- .1 Notify Departmental Representative when ready for inspection and prior to concealing or enclosing firestopping materials and service penetration assemblies.

### **3.6 SCHEDULE**

- .1 Firestop and smoke seal at:
  - .1 Penetrations through fire-resistance rated masonry, concrete, and gypsum board partitions and walls.
  - .2 Intersection of fire-resistance rated masonry and gypsum board partitions.
  - .3 Control and sway joints in fire-resistance rated masonry and gypsum board partitions and walls.
  - .4 Penetrations through fire-resistance rated floor slabs, ceilings and roofs.
  - .5 Openings and sleeves installed for future use through fire separations.
  - .6 Around electrical assemblies penetrating fire separations.



**3.7 FIELD QUALITY CONTROL**

- .1 Inspections: notify Departmental Representative when ready for inspection and prior to concealing or enclosing fire stopping materials and service penetration assemblies.
- .2 Manufacturer's Field Services:
  - .1 Obtain written report from manufacturer verifying compliance of Work, in handling, installing, applying, protecting and cleaning of product and submit Manufacturer's Field Reports.
  - .2 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 Schedule site visits, to review Work.

**3.8 CLEANING**

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.
- .3 Remove temporary dams after initial set of fire stopping and smoke seal materials.

**END OF SECTION**

**Part 1 General**

**1.1 GENERAL INSTRUCTIONS**

- .1 Read and be governed by Conditions of the Contract and Sections of Division 1.

**1.2 SECTION INCLUDES**

- .1 Materials, preparation and application for caulking and sealants.

**1.3 RELATED SECTIONS**

- .1 Section 01 00 10 - General Instructions.
- .2 Section 02 61 33 - Hazardous Materials.

**1.4 REFERENCES**

- .1 American Society for Testing and Materials International, (ASTM)
  - .1 ASTM C919-02, Standard Practice for Use of Sealants in Acoustical Applications.
  - .2 ASTM E814-08b, Standard Test Method for Fire Tests of Penetration Firestop Systems.
  - .3 ASTM E1966-07, Standard Test Method for Fire-Resistive Joint Systems.
- .2 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-19.13-M87, Sealing Compound, One-component, Elastomeric, Chemical Curing.
  - .2 CAN/CGSB-19.24-M90, Multi-component, Chemical Curing Sealing Compound.
- .3 Department of Justice Canada (Jus)
  - .1 Canadian Environmental Protection Act, 1999 (CEPA).
- .4 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (MSDS).
- .5 Transport Canada (TC)
  - .1 Transportation of Dangerous Goods Act, 1992 (TDGA).
- .1 South Coast Air Quality Management District (SCAQMD), California State (SCAQMD)
  - .1 SCAQMD Rule 1113-04, Architectural Coatings.
  - .2 SCAQMD Rule 1168-05, Adhesives and Sealants Applications.

**1.5 SUBMITTALS**

- .1 Submit product data in accordance with Section 01 00 10 - Submittal Procedures.

- .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 Product Data: submit WHMIS MSDS in accordance with Section 02 61 33 - Hazardous Materials.
- .4 Submit manufacturer documentation or Material Safety Data Sheet confirming the VOC content in g/L.
- .5 Submit samples in accordance with Section 01 00 10 - Submittal Procedures.
- .6 Submit duplicate samples of each type of material and colour.
- .7 Cured samples of exposed sealants to match adjacent material.
- .8 Submit manufacturer's instructions in accordance with Section 01 00 10 - Submittal Procedures.
  - .1 Instructions to include installation instructions for each product used.

#### **1.6 QUALITY ASSURANCE/MOCK-UP**

- .1 Construct mock-up to show location, size, shape and depth of joints complete with back-up material, primer, caulking and sealant.
- .2 Mock-up will be used:
  - .1 To judge workmanship, substrate preparation, operation of equipment and material application.
- .3 Locate where directed.
- .4 Allow 24 hours for inspection of mock-up by Departmental Representative before proceeding with sealant work.
- .5 When accepted, mock-up will demonstrate minimum standard of quality required for this Work. Approved mock-up may remain as part of finished Work.

#### **1.7 DELIVERY, STORAGE, AND HANDLING**

- .1 Deliver, handle, store and protect materials in accordance with Section 01 00 10 - 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.

#### **1.8 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate and recycle waste materials.

- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene and corrugated cardboard packaging material in appropriate on-site bins for recycling in accordance with site waste management program.
- .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, into 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 the 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 metal banding, flatten, and place in designated area for recycling.

## **1.9 PROJECT 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 4.4 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.

## **1.10 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.
- .3 Ventilate area of work by use of approved portable supply and exhaust fans.

## **Part 2 Products**

### **2.1 GENERAL**

- .1 Products and manufacturers specified establish performance and quality required and are not intended to restrict submission by other manufacturers.
- .2 Acceptance of Products from other manufacturers will be subject to review by the Departmental Representative, for conformity with the specifications and meeting the physical characteristics of the specified Products. Include compliance with referenced standards. Submittals which do not include adequate data for the product evaluation will not be considered.
- .3 If unapproved substitute products are included in the bid, the specified Products shall be provided without additional compensation.

### **2.2 SEALANT MATERIALS**

- .1 Do not use caulking that emits strong odours, contains toxic chemicals or is not certified as mould resistant in air handling units.
- .2 When low toxicity caulks are not possible, confine usage to areas which off-gas to exterior, are contained behind air barriers, or are applied several months before occupancy to maximize off-gas time.
- .3 Where sealants are qualified with primers use only these primers.

### **2.3 SEALANT MATERIAL DESIGNATIONS**

- .1 Type 1- Urethanes, Multicomponent.
  - .1 Non-Sag to CAN/CGSB-19.24, Type 2, Class B
  - .2 Sealants must have a VOC limit of less than 250 g/L, as per SCAQMD Rule 1168, October 2003.
  - .3 Colour: as selected later by the the Departmental Representative unless otherwise specified, normally to match the predominant Products to which sealant is applied.
- .2 Type 2- Silicones, One Part (Mildew Resistant).
  - .1 To CAN/CGSB-19.13.
  - .2 Sealants must have a VOC limit of less than 250 g/L, as per SCAQMD Rule 1168, October 2003.
  - .3 Colour: translucent, white or clear as selected later by the Departmental Representative unless otherwise specified, normally to match the predominant Products to which sealant is applied.
- .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 Neoprene or Butyl Rubber.
  - .1 Round solid rod, Shore A hardness 70.
- .3 High Density Foam.
  - .1 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<sup>3</sup> density, or neoprene foam backer, size as recommended by manufacturer.
- .4 Bond Breaker Tape.
  - .1 Polyethylene bond breaker tape which will not bond to sealant.

## **2.4 SEALANT SELECTION**

- .1 Seal interior perimeters of exterior openings as detailed on drawings: Sealant Type 1: Urethane, Multicomponent.
- .2 Perimeters of interior frames, as detailed and itemized: Sealant Type 1: Urethane, Multicomponent.

## **2.5 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.
  - .1 SCAQMD Rule 1113, Architectural Coatings.
  - .2 Primers must meet the VOC content of less than 200 g/L.

## **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**