

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawing and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Stone fiber batt acoustical insulation.

1.03 ACTION SUBMITTALS

- A. Provide submittals in accordance with Contract Conditions and Section 013300 - SUBMITTALS.
- B. Product Data: Submit product data including manufacturer's literature for insulation materials and accessories, indicating compliance with specified requirements and material characteristics.
 - 1. Submit list on insulation manufacturer's letterhead of materials and accessories to be incorporated into Work.
 - 2. MSDS report.
 - 3. Include product name.
 - 4. Include preparation instructions and recommendations, installation methods, and storage and handling requirements.
 - 5. Include contact information for manufacturer and their representative for this Project.
- C. Test Reports:
 - 1. Submit evaluation service reports or other independent testing agency reports showing compliance with specified performance characteristics and physical properties.
- D. Field Reports: Submit manufacturer's field reports within 3 days of each manufacturer representative's site visit and inspection.
- E. Insulation Installer Qualifications:
 - 1. Submit letter verifying insulation installer's experience with work similar to work of this Section.

1.04 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For each type of
- B. Product Certificates:
- C. Field quality-control reports.

1.05 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Supply maintenance data for insulation materials for incorporation into manual specified in Section 017800 - Closeout Submittals.
- B. Record Documentation: In accordance with Section 017800 - Closeout Submittals.
 - 1. List materials used in insulation work.
 - 2. Warranty: Submit warranty documents specified.

1.06 QUALITY ASSURANCE

- A. Batt and Blanket Insulation Installer Quality Assurance: Work experience of 5 years minimum with work similar to work of this Section.

1.07 COORDINATION

- A. Verification: Determine specific locations and sizes for access doors needed to gain access to concealed equipment, and indicate on schedule specified in "Submittals" Article.

1.08 DELIVERY STORAGE AND HANDLING

- A. Delivery and Acceptance Requirements:
 - 1. Deliver material in accordance with Section 016500 - Product Delivery, storage and Handling.
- B. Deliver materials and accessories in insulation manufacture's original packaging with identification labels intact and in sizes to suit project.
 - 1. Ensure insulation materials are not exposed to moisture during delivery.
 - 2. Replace wet or damaged insulation materials.
- C. Storage and Handling Requirements: Store materials off ground in dry location and protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
 - 1. Store in original packaging until installed.
- D. Packaging Waste Management:
 - 1. Remove waste packaging materials from site and dispose of packaging materials at appropriate recycling facilities.
 - 2. Collect and separate for disposal paper and plastic material in appropriate on-site storage containers for recycling.

1.09 WARRANTY

- A. Project Warranty: Refer to Contract Conditions for project warranty provisions.
- B. Manufacturer's warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to and not intended to limit other rights Owner may have under Contract Conditions.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Manufacturer: ROXUL INC., 420 Bronte Street South, Suite 105, Milton, Ontario, L9T 0H9, Phone: 905-878-8474, Toll Free: 1-800-265-6878, e-mail: contactus@roxul.com, URL: www.rspec.com.
 - 2. Or approved equal.

2.02 MATERIAL DESCRIPTION

- A. Non-combustible, lightweight, semi-rigid stone wool batt insulation to ASTM C665 Type 1, that provides fire resistance to ASTM E136 and sound control to ASTM E423.

2.03 PERFORMANCE CRITERIA

- A. Acoustical and fire batt insulation for walls and floors to ASTM C665, Type 1.
 - 1. Fire performance:
 - a. Non-combustibility: To ASTM E136.
 - b. Surface Burning Characteristics: To ASTM E84.
 - 1) Flame spread: 0.
 - 2) Smoke developed: 0.
 - 2. Acoustical Performance:
 - a. Airborne sound transmission loss: To ASTM E90.
 - b. Rating sound insulation: To ASTM E413.
 - c. Sound absorption coefficients: To ASTM E423.
 - d. Impedance and absorption of acoustic materials: To ASTM E1050.
 - 3. Air erosion velocity: 1,000 ft/m maximum to UL 181.
 - 4. Thermal resistance: To ASTM C518.
 - 5. Corrosive resistance: To ASTM C665, Corrosive to steel - Pass.
 - 6. Stainless steel stress corrosion: To ASTM C795.
 - 7. Density: To ASTM C612, 2.8 lbs/ft³.

2.04 MATERIALS

- A. Non-combustible, lightweight, semi-rigid stone wool batt insulation to CAN/ULC S702, Type 1, that provides fire resistance to ASTM E136 and a sound control to ASTM E90 and ASTM E423.
 - 1. Size: 16 x 48 inches.
 - 2. Thickness: 1 inches.
 - 3. Acceptable Material: ROXUL INC., ROXUL AFB®.

2.05 ACCESSORIES

- A. Mechanical fasteners in accordance with insulation manufacturer's written recommendations.
- B. Acoustical sealant in accordance with Section 079200 - JOINT SEALANTS.
- C. Firestopping materials in accordance with Section 078413 - PENETRATION FIRESTOPPING.

2.06 SOURCE QUALITY CONTROL

- A. Ensure insulation components and accessories are supplied or approved in writing by single manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for insulation installation in accordance with manufacturer's written recommendations.
 - 1. Visually inspect substrate in presence of Consultant.
 - 2. Ensure surfaces are free of snow, ice, frost, grease and other deleterious materials.
 - 3. Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant.
- B. Start of insulation installation indicates installer's acceptance of substrate installation conditions.

3.02 INSTALLATION

- A. Install insulation in accordance with manufacturer's written recommendations.
- B. Install insulation to maintain continuity of thermal protection to building elements and spaces.
- C. Do not compress insulation to fit into spaces.
- D. Co-ordinate installation of firestopping insulation with Section 078413 - PENETRATION FIRESTOPPING.
- E. Fit insulation closely around electrical boxes, pipes, ducts, frames and other objects in or passing through insulation.
- F. Seal joints with acoustical joint sealant in accordance with Section 079200 - JOINT SEALANTS.
- G. Do not enclose insulation until before inspection and receipt of Consultant's written approval.
- H. Keep insulation minimum 3 inches from heat emitting devices such as recessed light fixtures, and minimum 2 inches from sidewalls of chimneys and vents.

3.03 FIELD QUALITY CONTROL

- A. Coordinate manufacturer's services with Section 014500 - QUALITY CONTROL.
- B. Manufacturer's Services:
 - 1. Field Inspection: Coordinate field inspection in accordance with Section 014500 - QUALITY CONTROL.
 - a. Arrange for payment for manufacturer's services.
 - b. Have manufacturer review work involved in handling, installation, protection, and cleaning of insulation and accessories, and submit written reports in acceptable format to verify compliance of Work with Contract conditions.
 - 2. Manufacturer's Field Services: Provide manufacturer's field services consisting of product use recommendations and periodic site visits for product installation review in accordance with manufacturer's instructions.
 - a. Report any inconsistencies from manufacturer's recommendations immediately to Consultant.
 - 3. Schedule site visits to review work at stages listed:
 - a. After delivery and storage of drainage sheet and accessories, and when preparatory work on which Work of this Section depends is complete, but before installation begins.
 - b. Twice during progress of work at 25% and 60% complete.
 - c. Upon completion of Work, after cleaning is carried out.
 - d. Obtain reports within three days of review and submit immediately to Consultant.

3.04 CLEANING

- A. Progress Cleaning: Perform cleanup as work progresses.
 - 1. Leave work area clean at end of each day.
- B. Final Cleaning: Upon completion, remove surplus materials, rubbish, tools, and equipment [in accordance with Section 017423 - CLEANING.
- C. Waste Management:

1. Collect recyclable waste and dispose of or recycle field generated construction waste created during construction or final cleaning related to work of this Section.
2. Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.05 PROTECTION

- A. Protect installed products and accessories from damage during construction.
- B. Repair damage to adjacent materials caused by insulation installation.

END OF SECTION