

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 09 21 16 - Gypsum Board Assemblies.

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM C612-14(2019), Standard Specification for Mineral Fibre Block and Board Thermal Insulation.
 - .2 ASTM C1320-10(2016), Standard Practice for Installation of Mineral Fibre Batt and Blanket Thermal Insulation for Light Weight Frame Construction.
 - .3 ASTM E557-12, Standard Practice for Architectural Application and Insulation of Operable Partitions.
- .2 Underwriters Laboratories of Canada (ULC)
 - .1 CAN/ULC-S701-11, Standard for Thermal Insulation, Polystyrene, Boards and Pipe Coverings.
 - .2 CAN/ULC-S702-14, Standard for Thermal Insulation, Mineral Fibre, for Buildings.
 - .3 CAN/ULC-S704.1-17, Standard for Thermal Insulation Polyurethane and Polyisocyanurate, Boards, Faced.
 - .4 CAN/ULC-S710.1-11-R18, Standard for Thermal Insulation –Bead – Applied One Component Polyurethane Air Sealant Foam, Part1 and Part 2

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 Submittal Procedures.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with contract requirements and in accordance with manufacturer's written instructions.

Part 2 Products

2.1 RIGID INSULATION

- .1 Extruded polystyrene (XPS): to CAN/ULC-S701.
 - .1 Type: Type IV
 - .2 Compressive strength: 210 kPa (30 psi)
 - .3 Thickness: to match existing
 - .4 Installation: Multi layers; Maximum 50 mm per layer
 - .5 Edges: ship lapped.

2.2 SOUND BATT INSULATION

- .1 Glass Fibre Batt: to CAN/ULC-S702
 - .1 Type: 1.
 - .2 Surfaces: un-surfaced
 - .3 Thickness: 65 mm or as indicated.

2.3 ADHESIVE

- .1 Adhesive: VOC compliant polyurethane construction adhesive, resistant to freezing; VOC limit 70 g/l when tested in accordance with USEPA Method 24 and ASTM D23569.

2.4 ACCESSORIES

- .1 Insulation clips: impale type, perforated 50 x 50 mm cold rolled carbon steel 0.8 mm thick, adhesive back, spindle of 2.5 mm diameter annealed steel, length to suit insulation, 25 mm diameter washers of self-locking type.
- .2 Insulation clips for non-adhesive friendly substrate: steel, concrete screw with 25 mm diameter washer, length to suit insulation.

Part 3 Execution

3.1 WORKMANSHIP

- .1 Install insulation after building substrate materials are dry.
- .2 Install insulation to maintain continuity of thermal protection to building elements and spaces.
- .3 Fit insulation tight around electrical boxes, plumbing and heating pipes and ducts.
- .4 Keep insulation minimum 75mm from heat emitting devices such as recessed light fixtures.
- .5 Cut and trim insulation neatly to fit spaces.
 - .1 Butt joints tightly, offset vertical joints.
 - .2 Use only insulation boards free from chipped or broken edges.
 - .3 Use largest possible dimensions to reduce number of joints.
- .6 Offset both vertical and horizontal joints in multiple layer applications.
- .7 Do not enclose insulation until it has been inspected and approved by the departmental representative.

3.2 EXAMINATION

- .1 Prior to commencement of Work ensure:
 - .1 Substrates are firm, straight, smooth, dry, free of snow, ice or frost, and clean of dust and debris.

3.3 RIGID INSULATION INSTALLATION

- .1 Provide Type IV XPS
- .2 Apply adhesive to insulation board or use plastic insulation fasteners in accordance with manufacturer's recommendations.
- .3 Cut, fit, stagger and butt joints tight.
- .4 Foam fill voids with foam insulation.
- .5 Coordinate work with placement of vapour retarder.

3.4 BATT AND SOUND INSULATION INSTALLATION

- .1 Interior application: install where indicated.
- .2 Cut, fit and butt joints tight.
- .3 Secure with insulation clips or other means where required to prevent sagging.
- .4 Stagger Joints.

END OF SECTION