

PART 1 - GENERAL

1.1 RELATED
REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 35 29 - Health and Safety Requirements.
- .3 Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM C 591-16, Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation.
 - .2 ASTM C 1289-16a, Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
 - .3 ASTM E 96/E 96M-16, Standard Test Methods for Water Vapour Transmission of Materials.
- .2 Canadian General Standards Board (CGSB)
 - .1 CGSB 71-GP-24M-77(R1983), Adhesive, Flexible, for Bonding Cellular polystyrene Insulation.
- .3 Underwriters Laboratories of Canada (ULC)
 - .1 CAN/ULC-S704-11, Standard for Thermal Insulation Polyurethane and Polyisocyanurate, Boards, Faced.
- .4 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).

1.3 ACTION AND
INFORMATIONAL
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.
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1.4 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 Health and Safety Requirements: do construction occupational health and safety in accordance with Section 01 35 29 - Health and Safety Requirements.

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 polystyrene, corrugated cardboard packaging material in appropriate on-site for recycling in accordance with Waste Management Plan.

PART 2 - PRODUCTS

2.1 INSULATION

- .1 Extruded polystyrene (XPS): to CAN/ULC-S701.
 - .1 Type: 4.
 - .2 Compressive strength: 210 kPa.
 - .3 Thickness: 38 mm as indicated.
 - .4 Size: 600 mm x 2400 mm.
 - .5 Edges: shiplapped.

2.2 ADHESIVE

- .1 Adhesive (for polystyrene): to CGSB 71-GP-24.
 - .1 Type: 1.

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 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, around exterior doors and windows and other protrusions.
- .4 Keep insulation minimum 75 mm from heat emitting devices such as recessed light fixtures.
- .5 Cut and trim insulation neatly to fit spaces. Butt joints tightly, offset vertical joints. Use only insulation boards free from chipped or broken edges. 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 Departmental Representative.

3.3 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.

3.4 RIGID INSULATION INSTALLATION

- .1 Apply Type 1 adhesive to polystyrene insulation board 6mm beads in a grid pattern in accordance with manufacturer's recommendations.
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- 3.4 RIGID INSULATION INSTALLATION (Cont'd)
- .2 Imbed insulation boards into vapour barrier type adhesive, applied as specified, prior to skinning of adhesive.
 - .3 Leave insulation board joints unbonded over line of expansion and control joints. Bond a continuous 150 mm wide 0.15 mm modified bituminous membrane over expansion and control joints using compatible adhesive and primer before application of insulation.
- 3.5 PERIMETER FOUNDATION INSULATION
- .1 Exterior application: extend boards minimum below finish grade as indicated. Install on exterior face of perimeter foundation wall with adhesive.
 - .2 Under slab application: extend boards in from perimeter foundation slab as indicated. Lay boards on level compacted fill.
- 3.6 CLEANING
- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.