

## BUILDING INSULATION

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### 1. GENERAL

#### 1.1 Delivery, Storage And Handling

- .1 Deliver materials to Site in their original wrappings with labels intact and store in areas directed by Contractor Administrator.
- .2 Store insulation on raised platforms and protect with waterproof covers. Prevent exposure of insulation to UV exposure.
- .3 Store materials inside buildings for 24 hours prior to installation.

### 2. PRODUCTS

#### 2.1 Materials

- .1 Cavity Wall Insulation: CAN/ULC S701 Type 3, expanded, extruded polystyrene board insulation, minimum compressive strength of 170 kPa (25 psi) at 10% deformation or yield; square edges; unfaced, Styrofoam Cavitymate Ultra by Dow Chemical of Canada Ltd.
- .2 Roll or Batt Wall Insulation: Preformed glass fibre batt insulation, CSA A101-M, 17.5 kg/cu.m. (1.1 pcf) density.
- .3 Adhesive: Compatible to and as recommended by manufacturer of insulating materials.
- .4 Mechanical Fasteners
  - .1 Insulation Clips: Impale type, perforated 50 mm x 50 mm (2" x 2") cold rolled steel adhesive back, spindle of length to suit insulation plus 25 mm (1") with speed washers.
  - .2 Nails: Galvanized steel, length 25 mm (1") longer than insulation thickness, CSA B111 Table 12.
  - .3 Staples: Galvanized wire, 12 mm (1/2") minimum.

### 3. EXECUTION

#### 3.1 Preparation

- .1 Ensure that surfaces to receive adhesive or insulation are dry, firm, straight, and free from loose material, projections, ice, frost, slick, grease, oil or other matter detrimental to bond of the adhesive or uniform bedding of the insulation.
- .2 Maintain surface and ambient temperatures during application and curing of adhesive at a temperature recommended by the manufacturer of the type of adhesive used.

#### 3.2 Installation - General

- .1 Install insulation to maintain continuity of thermal protection to building elements and spaces as indicated on Drawings.

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- .2 Fit insulation tight to electrical boxes, plumbing and heating pipes and ducts, around exterior doors and windows and other projections or openings.
- .3 Cut and trim insulation neatly to fit spaces. Butt joints tightly, offset vertical joints. Use only insulation panels free from ripped backs or chipped or broken edges.
- .4 Install materials in accordance with manufacturer's instructions.
- .5 Do not cover insulation until it has been reviewed by Contractor Administrator.

### 3.3 Installation - Insulation

- .1 Apply adhesives to substrate at rate recommended by manufacturer.
- .2 Fix insulation clip type fasteners on substrate, 2 per 600 mm x 1200 mm (24" x 48") board minimum. Impale insulation board on insulation clips, butting all joints firmly together and secure with washers, cut off spindles 3 mm (1/8") beyond washer.
- .3 Leave insulation board joints unbonded over line of expansion and control joints. Bond a continuous 150 mm (6") wide 6 mil polyethylene strip over joint using compatible adhesive prior to application of insulation.
- .4 Provide flexible insulation of equivalent thickness and thermal insulation to fit areas where application of rigid insulation is not possible to provide continuous coverage.
- .5 Installation - Batt Or Roll Insulation
  - .1 Fit batt between framing and press firmly into place. Butt tightly at joints, free of gaps.
  - .2 Insulate behind pipes, ducts, electric conduits and outlets or junction boxes. Cut insulation to fit around and behind obstructions and non-standard spaces.

**END OF SECTION**