Part 1 General

1.1 RELATED REQUIREMENTS

.1 Section 04 05 00 - Common work results for masonry

.2 Section 04 05 19 - Masonry anchorage and reinforcing

.3 Section 04 05 23 - Masonry Accessories

.4 Section 07 26 00 - Vapour Retarders and Air Barriers

1.2 REFERENCES

.1 American Society for Testing and Materials International (ASTM)

.1 ASTM D2842-12, Standard Test Method for Water Absorption of Rigid Cellular Plastics.

.2 ASTM E96/E96M-16, Standard Test Methods for Water Vapour Transmission of Materials.

.2 Underwriters' Laboratories of Canada (ULC)

.1 CAN/ULC-S604-M91, Type A Chimneys.

.2 CAN/ULC-S701-11, Standard for thermal insulation, polystyrene, boards and pipe covering.

.3 CAN/ULC-S702-14, Thermal Insulation, Mineral Fibre, for Buildings.

.3 Canadian Standards Association (CSA International)

.1 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.

.2 CAN/CSA-B149.1-15, Natural Gas and Propane Installation Code.

.3 CAN/CSA-B149.2-15, Propane Storage and Handling Code.

.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 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOC's insulation products and adhesives.

.2 Manufacturer's Instructions:

.1 Submit manufacturer's installation instructions.

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 29.06 - Health and Safety Requirements.

1.5 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for reuse 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.

Part 2 Products

2.1 INSULATION

.1 Rigid insulation – Extruded polystyrene panel: to CAN/ULC-S701. Closed cell rigid insulation, CFC free, with high-density continuous skin surface.

.1 Type : 4.

.2 RSI : 0,88 m²K/W / 25mm

.3 Compressive resistance: minimum 210 kPa.

.4 Water absorption (ASTM D2842): 0.7% by volume, maximum.

.5 Thickness: as indicated (ASTM E96) : maximum 50ng/Pa s m²

.6 Recycled content : 20% minimum.

.7 Thickness: as indicated

.8 Dimensions : 610 mm x 2440 mm.

.9 Edges : ship-lapped.

2.2 ACCESSORIES

.1 Adhesive: in accordance with manufacturer’s recommendations.

.2 Galvanized steel sheet items: 1.2 mm minimum thickness, consisting of an assembly of sheet folded in an “L” shape to form a “Z” or “U” suiting thickness of insulation and containing a thermal break.

.3 Anchors for insulation:

.1 Installation on a masonry or half-timber wall: high resistance to corrosion in lengths suited to insulation being installed, equipped with a galvanized metal washer 50 mm in diameter.

.2 Nail: galvanized steel, measuring 25 mm longer than the thickness of the insulation, to CSA B111 standard.

.3 Staples: legs of at least 12 mm in length.

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, and minimum 50 mm from sidewalls of CAN4-S604 type A chimneys CAN/CGA-B149.1 and CAN/CGA-B149.2 type B and L vents.

.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 Examine substrates and immediately inform Departmental Representative in writing of defects.

.2 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 Exterior application:

.1 Fasten first row of insulation using adhesive.

.2 Apply a layer of adhesive on support and insulation panels, in accordance with manufacturer’s recommendations.

.3 Lay panels against outer face of perimeter foundation walls, to indicated level.

3.5 CLEANING

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

END OF SECTION