

This section includes a manufacturer's guide specification for Insul-Wall, a foam panel for wood-frame prefabricated wall system by Beaver Plastics. Refer also to Beaver Plastics Product Description for detailed product properties, options, and other technical information. This section includes performance, proprietary, and descriptive type specifications; edit to avoid conflicting requirements.

Part 1 General

1.1 SECTION INCLUDES

- .1 Molded polystyrene insulation boards, grooved to integrate with conventional framing lumber, as part of a prefabricated insulated wall system.

1.2 RELATED SECTIONS

- .1 Section [06101] [06 10 10] – Rough Carpentry:
- .2 Section [06112] [06 11 20] – Framing and Sheathing: Preparation of stud framing to receive work of this Section.
- .3 Section [_____-_____]: [_____] insulation.
- .4 Section [_____-_____]: Board insulation behind metal [wall] [roof] cladding.
- .5 Section [_____-_____]: Rigid insulation at roof system.

1.3 REFERENCES

List reference standards that are included within the text of this section. Edit the following as required to parallel any reference standards statements within this section. Acronyms used for well known standards (first example) and defined text for less or named standards (second example).

- .1 ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- .2 ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- .3 CAN/ULC-S701 – Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.
- .4 ASHRAE Handbook of Fundamentals.

1.4 PERFORMANCE REQUIREMENTS

Restrict statements in this article to identify system performance requirements or function criteria - where final design decisions or detailed sizing is performed by Contractor.

- .1 Thermal resistance: [3.5 RSI (R-20)] [5.2 RSI (R-30)].

1.5 SUBMITTALS

Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended

variations to drawings, thereby increasing the Specifier's liability. The following submittals are intended for review and acceptability.

- .1 Section [01300] [01 33 00]: Submission procedures.
- .2 Product Data: Provide data on product characteristics, performance criteria, limitations, [and] [_____].
- .3 Manufacturer's Installation Instructions: Indicate special environmental conditions required for installation, installation techniques, [and] [_____].
- .4 Manufacturer's Certificate: Certify that [products] [_____] meet or exceed [specified requirements.] [_____].

1.6 QUALITY ASSURANCE

- .1 Manufacturer: ISO 9001:2000 registered company.
- .2 Perform Work in accordance with manufacturer's instructions.

1.7 MOCK-UP

Use this article for assessing full sized erected assemblies for review of construction, coordination of work of several sections, testing, or observation of operation. A mock-up may also be used for assessing field applied finishes.

- .1 Section [01400] [01 40 00]: Requirements for mock-up.
- .2 Provide mock-up of materials of this section, [wood framing,] [and cladding] materials of Sections [_____] and [_____].
- .3 Locate [where directed.] [_____].
- .4 Mock-up may [not] remain as part of the Work.

1.8 DELIVERY, STORAGE, AND PROTECTION

- .1 Section [01600] [01 61 00]: Transport, handle, store, and protect products.
- .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .3 Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- .4 Store materials off ground, protected from direct sunlight.
- .5 Remove damaged or deteriorated Products from site.

1.9 ENVIRONMENTAL REQUIREMENTS

- .1 Section [01600] [01 66 00]: Environmental conditions affecting products on site.

Part 2 Products

2.1 MANUFACTURERS:

- .1 Beaver Plastics, Product "INSUL-WALL".
- .2 Substitutions: [Refer to Section [01600] [01 25 00].] [Not permitted.] [Refer to Instructions to Bidders.]

2.2 MATERIALS

- .1 Molded Polystyrene Insulation: CAN/ULC S701-1, ASTM C578 Type 1, polystyrene board, with the following characteristics:
 - .1 Board Size:
 - .1 Height: < [2370] mm> << [96] inches>>.
 - .2 Width: <[300] [400] [600] mm> <<[12] [16] [24] inches>>.
 - .3 Thickness: <[127] [176] mm> <<[5] [7] inches>>.
 - .2 Thermal Resistance: <RSI of [3.5] [5.2] [____]> << R of [20] [30] [____]>>.
 - .3 Compressive Strength: Minimum <70 kPa> <<10 psi>>.
 - .4 Board Edges: Vertical edges grooved to fit wood framing.
 - .5 Flame/Smoke Properties: 25/450 in accordance with ASTM E84.

2.3 ACCESSORIES

- .1 Wood framing members and vertical strapping, in accordance with Section [06112] [06 11 00] – [Wood Framing and Sheathing] [____].

2.4 FABRICATION

- .1 Fabricate foam panels with grooved vertical edges, in thickness specified.

Part 3 Execution

3.1 PREPARATION

- .1 Section [01700] [01 70 00]: Verify site conditions.
- .2 Verify that framing is dry and ready to receive insulation.

3.2 WORKMANSHIP

- .1 Install insulation to maintain continuity of thermal protection to building elements and spaces.

3.3 INSTALLATION

- .1 Install insulation panels between wood framing to manufacturer instructions.

- .2 Cut insulation to fit tight around electrical boxes, plumbing and heating pipes and ducts, around exterior doors and windows and other protrusions.

Verify clearances with local building regulations and safety codes. Check requirements for chimney vents and specify type required. Edit the following paragraph to suit project requirements.

- .3 Keep insulation minimum <[75] mm> <<[3] inches>> from heat emitting devices such as recessed light fixtures, and minimum <[50] mm> <<[2] inches>> from [sidewalls of CAN4-S604 type A chimneys] [and] [CAN/CGA-B149.1 and CAN/CGA-B149.2 [type B] [and] [L] vents].
- .4 Cut and trim insulation neatly to fit spaces. Use only insulation boards free from chipped or broken edges.
- .5 Do not enclose insulation until it has been inspected and approved by [Engineer] [Consultant].

3.4 MANUFACTURER'S FIELD SERVICES

This article is included to assist in field quality control of work being installed. The legal affect of this type of article is questionable and will not relieve the design professional of legal responsibility for the work described in this section.

- .1 Section [01700] [01 45 00]: Prepare and start components.
- .2 Monitor and report installation procedures, unacceptable conditions and [_____].

3.5 PROTECTION OF FINISHED WORK

- .1 Section [01700] [01 45 00]: Protecting installed work.
- .2 Protect finished Work from damage.

END OF SECTION