

SECTION 07 21 00

INSULATION

PART 1 GENERAL

1.1 SUMMARY

- A. Furnish all labor, material, equipment, and services necessary for and reasonably incidental to complete insulation as called for below.

1.2 SUBMITTALS

- A. Comply with requirements of Section 01 33 00.

1.3 QUALITY CONTROL

- A. All packages and containers of foam plastic and foam plastic ingredients shall bear the label of an approved agency showing either the flame spread rating and smoke developed rating of the product at the thickness tested or the use for which the product has been listed.
- B. All foam plastics or foam plastic cores in manufactured assemblies used in building construction shall have a flame spread rating of not more than 75 and shall have a smoke developed rating of not more than 450 when tested in the maximum thickness intended for use in accordance with ASTM E84.
- C. The potential heat of foam plastic in any portion of the wall or panel shall not exceed 6000 BTU/sq.ft. of projected area as described by tests conducted in accordance with NFPA 259.
- D. Foam plastic insulation, exterior coatings and facings tested separately shall have a flame spread rating of 25 or less and a smoke developed rating of 450 or less as determined in accordance with ASTM E 84.
- E. Results of diversified or full scale fire tests reflecting an end use configuration shall be submitted to the Building Official demonstrating the assembly in its final form does not propagate flame over the surface or through the core when exposed on the exterior face to a fire source.
- F. The edge or face of each piece of foam plastic insulation shall bear the label of an approved agency. The label shall contain the manufacturer's or distributor's identification, model number, serial number of definitive information describing the product or materials performance characteristics and approved agency's identification.
- G. Insulating materials, concealed as installed shall have a flame spread rating of not more than 75 and a smoke developed rating of not more than 450. Insulating materials exposed as installed shall have a flame spread rating of not more than 25 and a smoke developed rating of not more than 450.

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PART 2 PRODUCTS

2.1 MATERIALS:

- A. Fiberglass batt (**at locker room building**) type as manufactured by Owens Corning, Certainteed, Johns Manville or approved equal of thickness or R-value as shown on drawings, un-faced, meeting smoke and flame spread rating as specified this section. All concealed and exposed insulation to meet minimum flame spread and smoke development ratings per this specification and governing code requirements.
- B. Sound Attenuation Batts: 3 1/2" thick, un-faced fiberglass "Sonobatts", manufactured by Owens Corning, or approved alternate.
 - 1. Provide sound attenuation batts in stud walls surrounding each office and practice rooms.
 - 2. Refer to drawings and finish schedule notes for other areas where sound attenuation batts are called for.
- C. Rigid Cavity Wall Insulation (**at band addition**) refer to Section 07 21 13, Continuous Insulation.
- D. Cavity Wall Insulation – Refer to 07 21 01 Mineral Wool Insulation
- E. Rigid Roof Insulation: Refer to individual roofing sections for description or insulation.

PART 3 EXECUTION

3.1 WORKMANSHIP

- A. Batt Insulation between metal studs

Friction-fit insulation between studs after cover material has been installed on one side of the cavity. When unfaced insulation is used, and in applications without a cover material or where the stud depth is larger than the insulation thickness, use Spindle-type anchors and washers as specified and adhered to inside face of sheathing or substrate at 1'-0" o.c.-staggered. When faced insulation is used, the attachment flanges may be taped to the face of metal stud prior to applying the interior finish.

 - 1. Provide supplementary support to hold the product in place until finish surface is applied when insulation is installed in heights over 8 feet.
 - 2. Coordinate to assure electrical conduits and water piping are held to the interior face side of the wall.
 - 3. Unless other types of insulation is called for, install minimum 6" thick batt insulation (additional thickness as called for on drawings) above ceilings where attic space exists, and at roof where no attic space exists. Provide complete thermal seal between exterior and conditioned space.
 - 4. Unless noted otherwise and in addition to locations called for on drawings and in specifications, batt insulation shall be installed in exterior wall studs and interior walls separating conditioned space from non-conditioned spaces (i.e. offices from warehouse). Provide the following minimum R values:

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- a. R-19 at nominal 6" stud walls.
 - b. R-11 at nominal 3-5/8" stud walls.
- B. Fiberglass wall insulation and sound attenuation batts shall be friction fit, with electrical conduits and water piping held to the interior face side of the wall. When unfaced insulation is used, and in applications without a cover material or where the stud depth is larger than the insulation thickness, use wire or metal straps to hold insulation in place, maximum spacing 2'-0" o.c.
- 1. Install tight to sides of studs.
- C. Rigid Cavity Wall Insulation (at Band Addition)
- 1. Install tight to substrate. Panels are secured in place with wall tie system. Refer to Sections 04 21 13 and/or 04 22 00 for masonry wall tie product information.
 - 2. Joints to be butted tight to each other at ends and sides.
- D. Rigid Fiberglass Insulation Board
- 1. Install and adjust panels to lines and levels to provide accurate alignment and reveal widths as detailed.
 - 2. Provide an adhesive compatible with panel and substrate behind. Install panels using adhesive applied continuously across the back of the panel according to the manufacturer's recommendation. Core shall make continuous contact with substrate after installation.

END OF SECTION

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