

## SECTION 07 22 00

### ROOF AND DECK INSULATION

#### PART 1 GENERAL

##### 1.01 WARRANTY

- A. Warranty: See roof membrane standards.

#### PART 2 PRODUCTS

##### 2.01 INSULATION

- A. Cover board for built-up roofing: Perlite or wood fiberboard, flat stock, minimum 3/4" thick
- B. Cover board for EPDM roofing: Gypsum board ("Densglas" or equivalent), minimum 1/4" thick
- C. Base insulation layer: Polyisocyanurate foam board, tapered and flat
- D. Crickets and saddles: Polyisocyanurate foam board, tapered
- E. Tapered Edge Strip: Perlite or wood fiber insulation
- F. Cant Strip: Perlite or wood fiber insulation
- G. Gypsum Board

##### 2.02 INSULATION FASTENERS

- A. Coated type fasteners are prohibited.

#### PART 3 EXECUTION

##### 3.01 INSTALLATION

- A. At start of each workday, drains located within daily work area shall be temporarily plugged to prevent debris from falling into the drains. Plugs shall be removed at the end of each workday.
- B. Ensure that fasteners do not penetrate conduit or other miscellaneous items located on the underside of the roof deck.
- C. Fasteners shall not penetrate bottom rib of steel deck where deck is exposed to view in the finished construction. Fasteners shall not protrude below the bottom rib of steel deck.
- D. Do not install insulation when water in any form (i.e. rain, dew, ice, frost, snow, etc.) is present.
- E. All field insulation, tapered insulation and crickets shall be installed with tight side and end joints. Butt joints in succeeding rows of insulation shall be staggered. Butt and course joints in adjacent layers of insulation shall be offset in both directions a minimum of 12".
- F. Insulation gaps in excess of 1/4" in width shall be filled with fitted pieces of material.
- G. Insulation shall fit tightly around projections.
- H. At the start of each day's work, ensure joint in top insulation layer is offset a minimum of 12" from joint in bottom layer across removed temporary tie-offs. Continuous joints between all layers of insulation at tie-off locations will be rejected and will be grounds for removal and replacement of adjacent roofing.
- I. Insulation shall be installed to prevent ponding water in the finished roof system.
- J. Insulation for built-up roof systems
  1. Insulation shall be mechanically fastened to steel decks, and fully mopped with hot asphalt to primed concrete decks.
  2. Insulation shall be covered with cover board.
  3. Over all deck types, cover board shall be fully mopped in hot asphalt.

4. Cover board shall not be mechanically fastened through insulation into steel decks.
- K. Insulation for single-ply roof systems
1. Insulation shall be covered with cover board.
  2. Insulation shall be mechanically fastened over steel decks, cover boards shall be fully adhered.
  3. Where insulation thickness is more than six inches (6"), provide alternate fastening system.
  4. All layers shall be fully mopped over primed concrete decks.
- L. 4' x 8' insulation boards shall be used for all mechanically fastened product, and 4' x 4' maximum insulation boards shall be used for all adhered (fully mopped) installations. Use of 4' x 8' boards is strictly prohibited for adhered applications.
- M. All field cut edges shall abut parapets or other roof edge termination conditions.
- N. Determine insulation fastening rates; zones at perimeters, corners, and ridges to receive increased insulation fastening rates; and insulation fastening patterns to be used. Insulation attachment shall meet current building code, and ensure roof system meets FM Global 1-90 wind uplift requirements, whichever is more stringent.

**END OF SECTION 07 22 00**