

SECTION 07 05 00 - BASIC THERMAL AND MOISTURE PROTECTION MATERIALS AND METHODS

PART I - GENERAL

1.1 WARRANTY

- A. Single Ply: 15 year minimum.
- B. Built-up and Modified Roofing: 20 year Total Systems Warranty minimum.
- C. Asphalt Shingles: 25 year minimum; 35 year preferred.
- D. Plaza Decks: Manufacturer's total system warranty of 15 years covering labor and materials for removal, repair and reinstallation of all items for:
 - 1. Failure of waterproofing membrane or flashing to resist penetration of water.
 - 2. Failure of insulation to retain 80 percent of original thermal value, or failure of structural integrity under normal load conditions.
 - 3. Failure of pavers including cracking, splitting, spalling, delamination, and disintegration of pavers.
- E. Provide a 2 year Contractor Installation Warranty.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MATERIALS

- A. Roof Drains: Only cast iron or aluminum drain strainers are acceptable. Plastic is *not* acceptable.
- B. Roof Curbs: Roof curbs are preferred over rails.
 - 1. Rails: If rails are used a minimum of 3 feet shall be maintained between the bottom of the unit and the roof membrane.
 - 2. Height with Curb: There shall be a minimum of 8 inches height between the top of the roof membrane and the bottom of the flashing for the curb.
- C. Metal Caps and Flashings: Galvanized metal is *not* acceptable. All metal on roofs shall be aluminum, stainless steel, or copper.
- D. Roof Insulation: Polyisocyanurate insulation shall be used on all roofing applications. *[Note to AE: While it may not be possible to increase roof insulation to current code requirements, efforts should be made to do so.]*
 - 1. Insulation Protection: 1/2-inch hardboard insulation shall be installed over all polyisocyanurate insulation.
 - 2. Taper: Low-sloped roofs have 1/4-inch per foot minimum taper. No-slope roofs are not acceptable.

3. Layers: A minimum of 2 layers of insulation with staggered joints in each layer, offset 6-inches minimum from joints of layer below.

E. Vapor Barriers

1. Number of Plys: Two #15 ply felts set 100 percent in hot asphalt with a flood coat are the minimum standard for concrete decks.

F. See Section 07 21 00 for building insulation requirements.

PART 3 - EXECUTION

3.1 SPECIAL CONDITIONS

A. Roofing Under Cooling Towers: Roof areas under cooling towers shall have 2 layers of liquid applied elastomeric applied to decks before installation of the primary roofing system. Embed tapered insulation in same. Liquid sealer shall be used in all pitch pockets.

END OF SECTION 07 05 00

This section of the *U of I Facilities Standards* establishes minimum requirements only.
It should not be used as a complete specification.