

07 10 00 Damp Proofing and Waterproofing

Revision 01/04/2019

Purpose:

The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard's section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

1. Water-Resistive Barriers/Air Barriers (WRB/AB): General Requirements

- a. WRB/AB over exterior grade plywood substrate:
 - i. No fluid-applied waterproofing is permitted over plywood sheathing.
 - ii. Use 40 mil thick, self-adhered membrane.
- b. WRB/AB over exterior gypsum sheathing substrate:
 - i. No fluid-applied waterproofing allowed over exterior gypsum sheathing.
 - ii. Use 40 mil thick, self-adhered membrane.
- c. WRB/AB over CMU and Concrete Substrates:
 - i. Either 40 mil thick, self-adhered membrane or 32MR fluid-applied, vapor impermeable, WRB/AB is permitted over CMU or concrete surfaces. 31MR vapor permeable air barrier (AB) membrane where moisture vapor migration and condensation are not a concern.

2. Below-Grade Waterproofing: General Requirements

- a. Use 250GC high-solids, modified polyurethane waterproofing membrane over all below-grade (basement and foundation) vertical wall surfaces. Or Rice approved equal.
- b. Install sheet waterproofing membrane; consisting of 20 mil thick HDPE, expandable, granular bentonite, and spun-bonded polyester reinforcement over the 250GC membrane. Or Rice approved equal.
- c. Install asphaltic protection board over the LG membrane.
- d. Install Tremco TREMDrain[®], or Carlisle CCW MiraDRAIN 6000XL, or Rice approved equal in lieu of board if there is any possibility that hydrostatic pressure will develop against below-grade walls.
- e. Install chemical water stops at all cold pour joints below-grade (i.e. concrete footing/basement floor slab interface, concrete footing/below-grade wall interface, etc.).
 - i. No polyvinyl chloride (PVC) water stops will be permitted.

3. Plaza (Horizontal) Deck Waterproofing: General Requirements

- a. Use rubberized asphalt membrane reinforced with spunbond polyester fabric reinforcement over all horizontal (plaza deck and vegetative roof) surfaces. Install asphaltic protection board over the membrane.
- b. Install prefabricated drainage composite over the asphaltic protection board and membrane surfaces on all horizontal plaza deck or vegetative roof applications.

- c. Install extruded polystyrene (XPS) foam board insulation (of necessary thickness to meet current energy conservation code requirements) over all conditioned building spaces.
- d. Install non-reinforced, heat-weldable, polypropylene sheet barrier in all planter beds, or other vegetated applications, in order to resist root penetration.
- e. For pedestal paver systems, include manufacturer's 15-year warranty.
 - i. Manufacturer must agree to repair or replace waterproofing, sheet flashings, and overburden, that do not comply with requirements or that fail to remain watertight within specified warranty period.

4. Waterproofing Consultant

- a. Architect to use a waterproofing consultant.
 - i. Generally a 3rd party.
 - ii. If the project architect proposes to use a member of their own firm, then this must be pre-approved by the Rice Project Manager