

07 60 00 Flashing and Sheet Metal

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. General requirements

- a. Copper Flashings:
 - i. Copper sheet metal flashings (scuppers, conductor heads, downspouts, copings, counterflashings, edge metal, etc.) must be utilized wherever possible.
 - ii. Use alloy number 110 copper, conforming to ASTM B 370; temper H00, except where temper 060 is required for forming. Minimum weight shall be 24 ounces per square foot.
 - iii. Fasteners for Copper Sheet Metal:
 - a) Pop Rivets: Pop rivets with stainless steel body and mandrel.
 - b) Exposed Fasteners: Stainless steel screws with bonded neoprene washers.
 - c) Copper-to-Wood: Stainless steel screws, minimum 1-1/4 inch in length.
 - d) Copper-to-Concrete or -Masonry: expansion anchors with stainless steel sheath and drive nail, minimum 1-inch in length.
 - e) Wherever possible, lap and solder all joints between adjacent copper sections with ANSI/ASTM B 32 solder (composition: 50% pig lead and 50% block tin) and a non-corrosive soldering salt flux. Mechanically fasten all laps with brass or copper blind-rivets.
- b. Stainless Steel:
 - i. Stainless Steel shall be used for SMACNA boxes, sheet metal hoods, pitch pans and bonnets, vent stack flashings, and other penetration flashings. Galvanized metal is not acceptable.
 - ii. Stainless steel shall be Type 304 or Type 316, minimum 24 gauge, with standard 2B finish.
 - iii. Fasteners for Stainless Steel Sheet Metal:
 - a) Pop Rivets: Pop rivets with stainless steel body and mandrel. Lap and seal all joints with silicone rubber sealant.
 - b) Exposed Fasteners: Stainless steel screws with bonded neoprene washers.
 - c) Stainless Steel-to-Wood: Stainless steel screws, minimum 1-1/4 inch in length.
 - d) Stainless Steel-to-Concrete or -Masonry: expansion anchors with stainless steel sheath and drive nail, minimum 1-inch in length.
- c. Prefinished Galvanized Sheet Metal:
 - i. If galvanized metal must be used, it shall be G-90, hot-dipped, galvanized steel sheet conforming to ASTM A527 requirements; minimum 24 gauge thickness.

- i. All exposed galvanized sheet metal must receive a fluorocarbon coating, factory pre-finished, coil-coating color finish.
- d. Lead Shields (for Roof Drains): Sheet Lead: 4 pound de-silverized common pig lead conforming to Federal Specification QQ-L-201.
- e. Liquid-Applied Membrane (LAM) Flashings:
 - i. At irregular-shaped roof penetrations, use flexible, polymethyl methacrylate (PMMA) resin flashing system
- f. Through-Wall Flashings:
 - i. As a minimum, install through-wall flashings at the following locations:
 - a) Along the base of exterior walls.
 - b) At structural steel shelf angle supports.
 - c) At the head conditions (i.e. at lintel angle or bond beam supports) of exterior doors, windows, louvers, and other wall openings.
 - d) At sill conditions of exterior doors and windows.
 - e) Beneath stone, cast stone, and masonry copings.
 - ii. Acceptable Products:
 - a) Copper Sheet Metal Thru-Wall Flashing (for use at all exposed and concealed locations): Cold-rolled copper, Temper H00, ASTM B370, minimum 20 oz. weight.
 - i. Fabricate through-wall metal flashings with bi-directional deformation for integral mortar bond.
 - ii. Solder: ASTM B32, Class 50A or 50B, bar form, 50% block tin and 50% pig lead.
 - iii. Flux: Conforming to ASTM B813. Clean metal immediately after soldering to ensure that no acid remains on the metal.
 - b) Sheet Membrane Flashings (transition flashing to be used in conjunction with copper sheet metal through-wall flashing):
 - i. Concealed Wall Conditions: Wall Flashing
 - ii. High-Temperature Conditions (i.e. underneath exposed metal): High Temperature Membrane.
 - iii. Compressed Conditions (i.e. beneath stone copings): Reinforced, self-adhesive sheet membrane.
 - iv. All sheet membrane flashing installations to receive primer unless the manufacturer states in writing that primer will adversely affect the sheet membrane's adhesion or long term performance.
 - c) Composite/Laminated Through-Wall Flashing: Self-Adhering Copper Fabric Flashing" composite sheet membrane consisting of a polyethylene film laminated to a 7-ounce copper sheet.