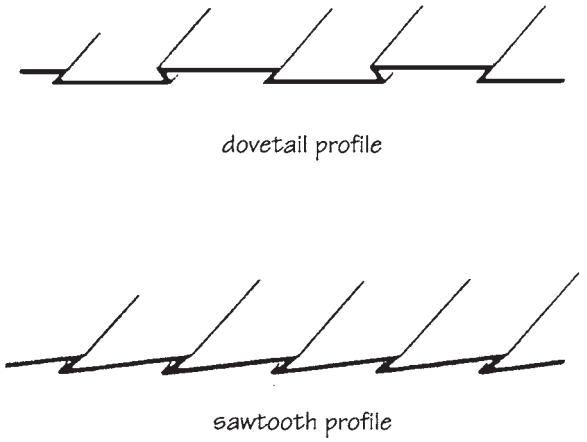

Figure 7-25 Deformed metal flashing forms a mechanical bond with the mortar.

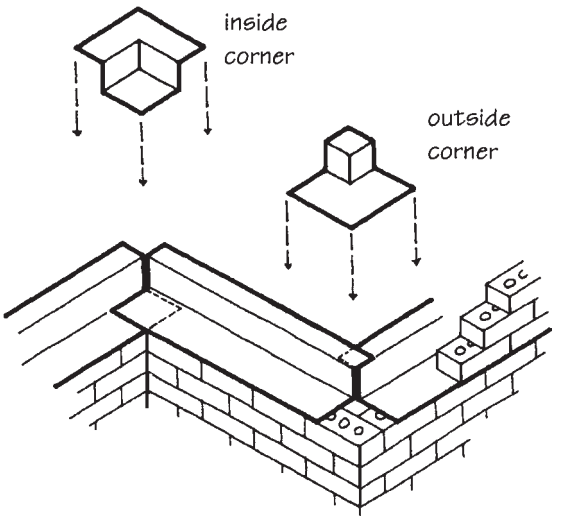

Figure 7-26 Prefabricated corner flashing.

Primers can help assure good adhesion to concrete, sheathing, and other substrates, and can make cold-weather adhesion easier to achieve than with a heat gun. Rubberized asphalt flashing cannot tolerate ultraviolet exposure. When it is necessary or desirable to extend the flashing material beyond the face of the wall, rubberized asphalt membranes must be used in conjunction with a separate metal drip edge. *Figure 7-27* lists the advantages and disadvantages of the most commonly used flashing materials.

The cost of flashing is minimal compared to the overall construction budget, and it is usually counterproductive to economize on flashing materials at the expense of durability. Flashing material selection should take into account the function, environment, and expected service life of the building. For institutional buildings and others which will be in service for long periods of time, only the most durable materials should be used.

Masonry Flashing Materials

Material	Minimum Thickness or Gauge	Advantages	Disadvantages
Stainless steel	26 gauge/0.018 in.	Very durable, non-staining	Difficult to solder and form
Cold-rolled copper	16 oz.	Flexible, durable, easily formed and jointed	Damaged by excessive flexing, can stain surfaces below where water runs off, bitumen and fire-retardant treated wood containing salts are corrosive to copper
Galvanized steel	28 gauge/0.015 in.	Durable and easy to paint	Difficult to solder, corrodes early in acidic and salty air
Lead-coated copper	16 oz.	Flexible, durable, non-staining	Heat control of soldering irons is critical, 60-40 tin-lead solder must be used, damaged by excessive flexing
Copper laminates	5 oz. (copper)	Easy to form and join	Fabric degrades in UV light, more easily torn than full copper
EPDM	45 mil	Flexible, easy to form and join, non-staining	Metal drip edge required, full support recommended
Rubberized asphalt	40 mil	Fully adhered, separate lap adhesive not needed, self-healing, flexible, easy to form and join	Full support required, degrades in UV light, metal drip edge required, difficult adhesion in cold weather, surfaces must be clean and some require priming
PVC	30 mil	Easy to form and join, non-staining, low cost	Easily damaged, full support required, metal drip edge required, questionable durability, embrittled and often cracked by age and thermal cycling

Figure 7-27 Flashing types and properties.

7.7 WEEP HOLE ACCESSORIES

Masonry walls are designed to drain moisture. Without effective weep holes in the course above flashings, walls collect moisture and hold it like a reservoir. The most common type of weep hole is the open-head joint, which provides the largest open area and thus the most effective evaporation and drainage. Mortar is left out of brick masonry head joints every 24 in., leaving open channels that are ⅜ in. wide × course height × veneer depth. The primary drawback to open-joint weeps is appearance. A dark shadow is created at each opening, particularly with light-colored units and mortar. The openings are so large, in fact, that building maintenance crews all too often caulk the weep holes shut, mistakenly thinking they are the source of leaks. Some products camouflage the open joints but still allow them to work properly. One is a vinyl or aluminum cover with louver-type slots. Another is a plastic grid ⅜ in. wide × course height × veneer depth less a ⅛-in. recess (*see Fig. 7-28*). Both types disguise the openings and still permit drainage and evaporation.

Hollow plastic or metal tubes are also used to form weep holes. The most common ones are ¼ in. or ⅜ in. in diameter by 3½ to 4 in. long. Manufacturers recommend installing them at an angle in the mortar of the head joints, spaced 16 in. apart. The slight angle allows for a very small amount of mortar droppings in the cavity. The closer spacing is required because less water can drain through the tube, and less air can enter the wall, making drainage and evaporation much slower. Tube-type weep holes are less conspicuous in the finished wall than open joints, but they are easily clogged by mortar or insects, and are not recommended. Some manufacturers make larger, rectangular tubes which measure ⅜ × 1½ × 3½ in. Since the opening is much larger, blockage is not a problem, but the weep holes are more noticeable.