



Grounding Conductive/Static Dissipative Flooring

Conductive floor systems must be connected to a permanent earth ground to achieve an electrical equipotential plane (EP), a condition in which static electricity can be dissipated in any direction. Concrete cannot be an EP because air pockets, compositional variations, aggregates and other additives present in the concrete work against achieving uniform conductivity.

Therefore, a conductive floor must be connected to true earth ground through direct, uninterrupted contact with properly prepared grounding points. To insure electrical continuity, a “Y” shaped copper strip should be used to bridge existing joints in the concrete. (Fig. 1)

While there are several methods of establishing the grounding point contact with the conductive floor topping, copper tape is recommended with General Polymers’ systems. Copper tape is available in various widths to provide a larger area of contact than wire to the topping and, since it is only a few mils thick, it does not interfere with a uniform floor thickness. Typically, copper tape two inches in width is sufficient.

Metal floor joints and steel posts or columns may be used as grounding points if they have been tested to confirm permanent continuity to a true earth ground (Fig. 1) The ground point may also be connected to the grounding terminal of an existing electrical outlet. (Fig. 2) In general, a minimum of one grounding point per 1000 square feet of continuous floor space is sufficient for proper dissipation of static electricity.

The copper tape should extend a minimum of 6 inches under the floor topping, continuing under and extending above the cove with sufficient tape exposure to allow a copper grounding wire to be attached. An eye may be soldered to the tape to facilitate attaching the wire. The wire is then connected to the chosen true earth ground point.

Fig.1

Grounding method using conducting strip for floors

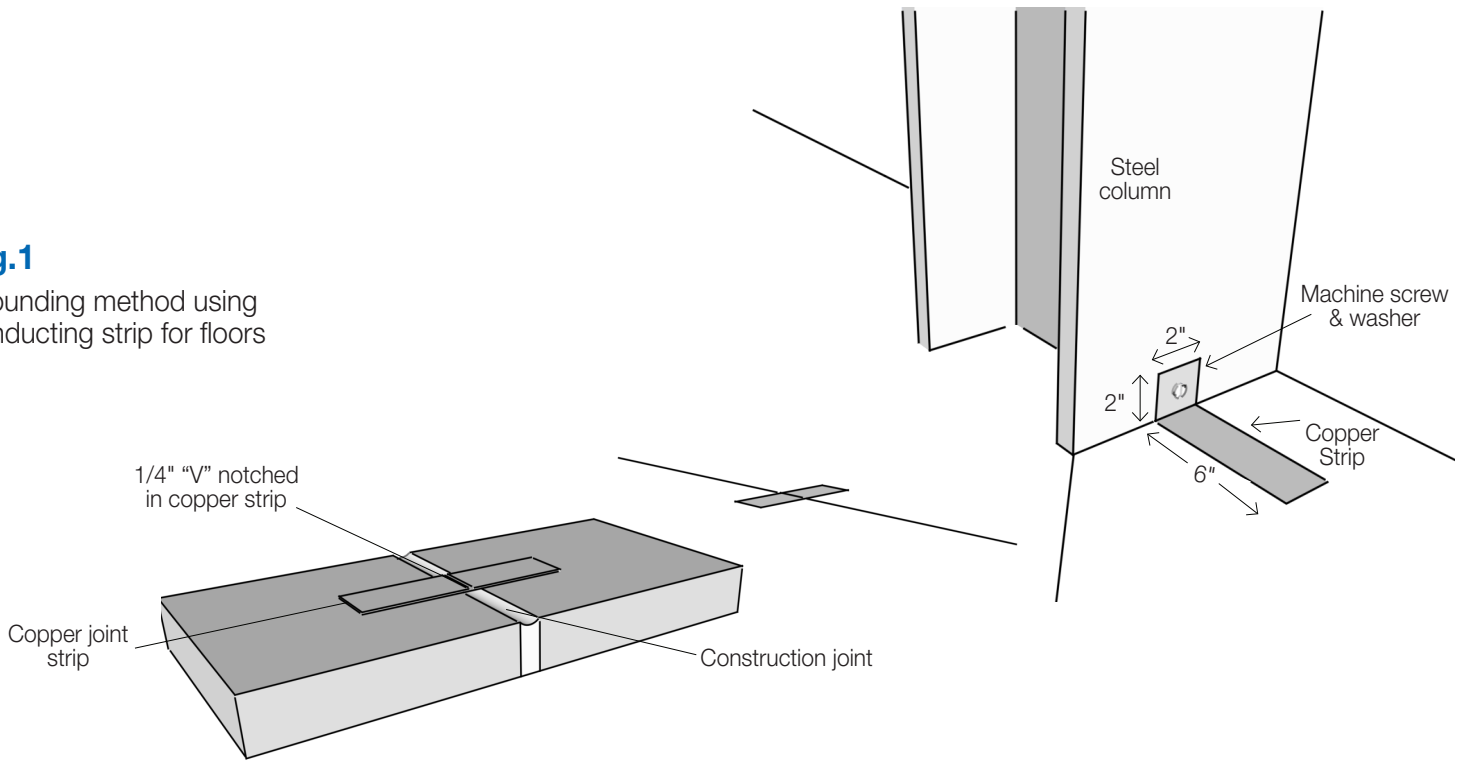
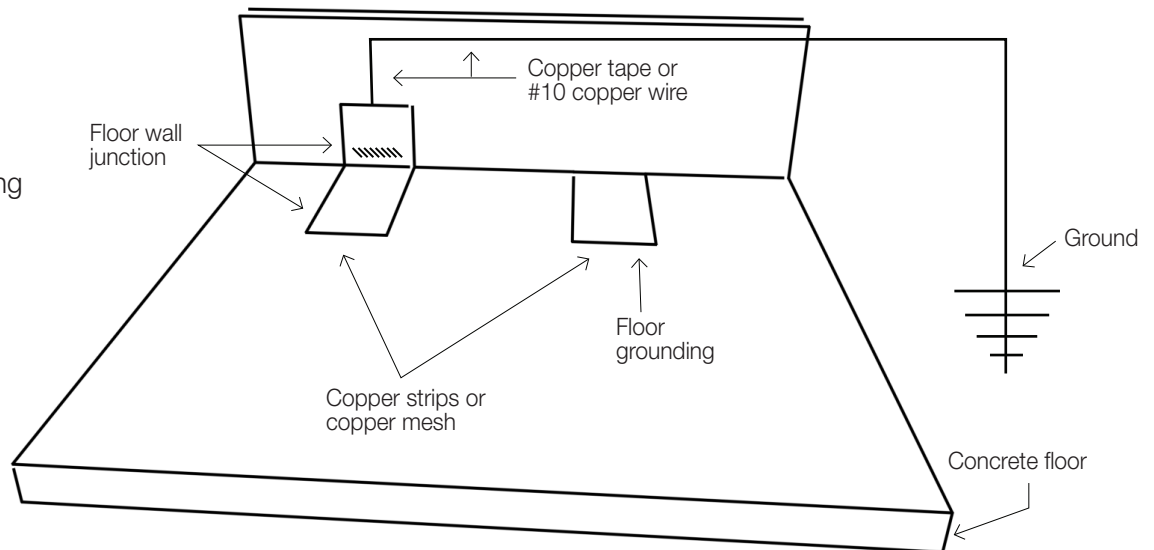


Fig. 2

Alternatives for floor grounding and floor/wall junctions



To learn more, visit us at

www.sherwin-williams.com/protective

or call 1-800-524-5979

to have a representative contact you.

©2014 The Sherwin-Williams Company
Protective & Marine Coatings