



Earth-Grounding Cable

Components:

The earth-grounding cable for Imperial Paints EMR Shielding Paint comprises a copper plate attached to a 35" long length of thin wire. One end of the wire is soldered and glued onto the copper plate, while the other end is stripped bare of its plastic covering to be grounded to either the ground of a nearby outlet or copper plumbing. Also included is a white magnetic wall plate to cover the copper ground plate.

Installation Instructions:

1. Decide where the grounding plate is to be attached.
2. Trim the wire, if necessary, to make it just long enough to connect the wall and grounding point (to reduce the chance of the wire being accidentally pulled off the wall). If the wire has been shortened, remove $\frac{1}{4}$ " of the plastic coating to leave the wire bare at its end.
3. Hold the ground plate against the wall where it will be affixed, and trace the screw holes onto the wall.
4. Drill the traced holes into the wall and put the wall plug in, make sure that the plugs are flush with the wall to ensure a good ground connection.
5. Paint the EMR Shielding Paint onto the area where the plate will be attached and allow to dry.
6. Once the paint is dry screw the ground plate onto the wall and place magnetic wall plate over it.
7. We recommend hiring a licensed electrician to ground the other end of the wire, in some areas this is required.

It is not always necessary to ground Imperial Paints EMR Shielding Paint. The paint will screen RF fields whether grounded or not. However, the paint is conductive, so it might pick up ELF electric fields from the mains electricity wiring. If protection is needed against EMR only (microwaves, mobile telephone masts etc.) then grounding is not necessary. If full shielding efficiency at lower frequencies is required (for example power lines) then it is essential that the product is grounded.

If in doubt: Conduct a "before" and "after" test for ELF electric fields. Using a calibrated electric field meter, measure the electric field, standing on the floor at least a foot away from the wall once it has been painted. Note the readings. Earth the paint using an earthing lead and measure the electric fields again in the same position. If the fields are higher once the paint has been earthed remove the earthing lead. If the readings fall, keep the earthing lead in place.