

Create Healthy Homes

Environmental Design and Inspection Services

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Y-Shield and RF-ECO Paint Ordering and Installation Instructions

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Y-Shield and RF-ECO are both carbon-based paints that shield Radio Frequency (RF) signals as well as electric fields (when grounded). They are a black paint that is applied as a primer. They are non-toxic. Your painter will need to apply several layers of top-coat paint to cover the black Y-Shield and RF-ECO paints once they are applied. They are applied either on the interior or exterior of your house. Windows will need to be shielded from incoming radio frequencies using separate shielding materials (film, metal screen and/or curtain fabric).

Note: A cell phone used in any room fully painted on all four walls and ceiling with Y-Shield paint would not connect as easily to an outside cell tower, or even to a cell booster in the next room. Nor will it connect well with a WiFi router in another room. That is because the paint is doing its job of blocking radio frequencies from passing through the four walls and ceiling. Certainly, do not put a cell booster or any wireless device transmitting WiFi or Bluetooth into a room fully painted on all four walls and ceiling with Y-Shield. The signal transmitted by that device will not easily get into adjoining rooms. More importantly, you will be exposed to higher levels of radio frequencies, because they will not only come from the transmitter itself, but they will bounce off the inside of the painted, shielded walls and ceiling and amplify within the room. This will especially be an issue for electrically sensitive individuals.

Please note that if you only paint one wall, such as to block incoming RF from an outside source such as a cell antenna or airport radar, you will not be creating a Faraday cage in your bedroom because the other three walls, and ceiling, are not being painted. In that case, your cell phone, should you choose to continue to use it in your bedroom, would not be blocked as noted above. However, why

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would you want to continue to use a cell phone or laptop with WiFi enabled inside your home when you are trying to block the very same radio frequency EMF energy from coming in from outside and not use hardwired alternatives for voice calls, texts and to get on the Internet that we recommend?

I do not apply either the paint (nor the window film). You will have to hire a local painter to do that and hire an electrician to ground the paint. I also have two electricians in Southern California who are experienced at applying and grounding this paint.

If you have your own electrician and painter apply this product, you can order Y-Shield HSF54 paint, EBX10 conductive tape and a grounding kit from Safe Living Technologies in Ontario, Canada or LessEMF in New York. See below for links. One liter of paint covers up to 86 square feet, while five liters (1.32 U.S. gallons) would cover up to 430 square feet. We recommend you use one or two coats for electric field shielding and two coats for radio frequency shielding.

Ordering Y-Shield and RF-ECO RF Shielding Paint from Safe Living Technologies

A five-liter bin (1.32 U.S. gallons) of [Y-Shield HSF54 paint](#) costs \$230 U.S. Dollars (according to the October 2025 Canadian/U.S. dollar exchange rate and the listed price on the Safe Living Technologies website). Five liters (1.32 U.S. gallons) covers 215-430 square feet. Use two coats for RF protection. They also offer 20 Liters (which is four 1.32 gallon bins for a total of 5.28 U.S. gallons) for \$920.00 U.S. dollars (at October 2025 exchange rate and as the listed price), available by clicking [here](#). Payment can be made in four interest-free payments--see Safe Living Technologies website order page for details.

Safe Living Technologies also sells RF-ECO RF Shielding Paint, which, like Y-Shield, is an acrylic binder, water-based, low-toxic graphite and carbon-based primer for RF protection in the low, mid and high RF/cellular bands, including 5G. One U.S. gallon covers 172-344 square feet. Use two coats, like Y-Shield, for RF protection. Can be grounded for better RF protection (*must* be grounded to block AC electric fields). Order the RF-ECO RF Shielding Paint, one U.S. gallon bin, for \$109 U.S. dollars (at October 2025 exchange rate and listed price) by clicking [here](#). Purchase four U.S. gallons for \$399.00 U.S. dollars (at October 2025 exchange rate and listed price) by clicking [here](#). Payment can be made in four interest-free payments--see Safe Living Technologies website order page for details. You can also purchase 1.06 U.S. Quart (1 Liter) for \$39.00 U.S. dollars (at October 2025 exchange rate and listed price) by clicking [here](#). One liter covers 43-86 square feet. Remember to use two coats, like Y-Shield, for RF protection.

The [Interior Grounding Kit - GS3](#) for use with both Y-Shield and RF-ECO Paint costs \$35 with 1 meter grounding cable. [Grounding Tape - GSX10 / GSX50](#),

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which is used to ensure proper grounding if you apply the paint to adjoining walls or wall and floor, is available for \$22 for a 10-meter (32 foot) roll, or \$105 for a 50-meter (160 foot) roll. To see the full product line for applying Y-Shield paint, click [here](#).

Information on ordering and using the grounding kit and tape used for both Y-Shield and RF-ECO Paint is provided separately below. If you have any questions about ordering these products, call Safe Living Technologies at 519-240-8735 (Eastern time zone).

Ordering Y-Shield RF Shielding Paint from LessEMF

An alternative is to purchase [Y-Shield HSF54 Paint](#) from LessEMF in New York (888-537-7363). The cost, as of June 2023, is \$52.46 per one-liter pail and \$246.75 per five-liter pail (1.32 U.S. Gallons). (You will notice that the cost of the paint is somewhat lower from Safe Living Technologies than LessEMF for the five-liter pail, but you will also have to compare shipping costs from these two retailers to where you live.)

Instructions on How to Apply Y-Shield Paint

Information on how to apply the paint is available on the websites for LessEMF and Safe Living Technologies. An overview of Y-Shield paint with information on its characteristics, its low toxicity, and photos showing its application is available at <https://www.slt.co/Downloads/Shared/YSHIELD-ShieldingPaints.pdf>.

Instructions on how to apply the paint are provided at <https://www.slt.co/Downloads/Shared/YSHIELD-HSF54-TDS.pdf> and <https://www.lessemf.com/yshield-install.pdf>.

Links on how to apply a grounding kit and conductive tape are provided below.

Grounding Instructions

In order to provide continuous and effective shielding of AC electric field EMFs (and to enhance RF shielding, according to some), you need to order a grounding kit, one for every 1,000 square feet of surface or one per room, to ground the paint. Grounding the paint is essential to make it effective as a barrier to AC electric fields.

While grounding is absolutely essential for effective shielding of electric fields, there are various opinions as to how effectively the grounding of the paint enhances radio frequency shielding. We have measured significant reduction in incoming RF levels with two layers of Y-Shield without any grounding, however the consensus among some experts is that adding grounding improves the effectiveness of Y-Shield at blocking RF by up to 30%. Other EMF experts have stated that they have seen no evidence of this improvement with grounding and

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they do not do that step, satisfied with the amount of RF reduction that two coats of Y-Shield provide without grounding.

A note about applying conductive tape or AF3 Fiber Additive to only one surface when grounding. The video instructions on Safe Living Technologies' website page for Y-Shield paint mentions grounding of the paint solely to improve RF shielding with a ground plate. When doing so, even if you only apply the paint to one surface, they recommend applying conductive tape to even that one surface to improve grounding across the entire single surface. An alternative to the tape to maximize grounding of that single surface is AF3 Fiber Additive, which can be mixed right into the paint.

However, if one is not grounding Y-Shield paint, then neither the tape nor the AF3 Fiber Additive are necessary.

(If you need to ground the paint and you apply it to two or more adjoining surfaces, such as a wall to the ceiling or two walls adjoining at a corner, then you need the tape in order to use only one ground plate on one wall and then extend grounding to the adjoining surface using the tape.)

Also, some express the concern that when mixing in an additive to Y-Shield paint, one runs the risk of possibly altering the chemical composition of the paint and possibly reducing its ability to block incoming RF signals. Some experts recommend avoiding mixing additives into Y-Shield paint for that reason.

If you do choose to ground Y-Shield paint, your electrician will need to install this grounding plate on the sheetrock near an outlet and then ground the plate to the ground within a nearby outlet before the full coat of Y-Shield paint is applied to walls and floor. The grounding plate is then covered with a white plastic cover.

You have two choices of where to purchase the plate:

Order interior ground kit from Safe Living Technologies at
<https://safelivingtechnologies.com/interior-grounding-kit-gw/?aff=6> . Includes metal plate, plastic covering cap, anchors, screws and cable. Costs \$27 but does not include conductive tape. Order EBX10 tape separately for \$23 at
<https://safelivingtechnologies.com/grounding-tape-ebx10/?aff=6> .

Order interior grounding kit from LessEMF at
<https://www.aitsafe.com/go.htm?go=www.lessemf.com/paint.html&afid=51307&tm=90&im=#290-grd> . Includes metal plate, plastic covering cap, grounding sockets, screws, cable and conductive tape. Costs \$39.95 and it includes conductive Ni/Cu/Co fabric tape. No need to order tape separately.

You will need conductive grounding tape to provide effective grounding if you apply this paint to two adjoining surfaces (two walls or wall and floor, or ceiling).

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The Y-Shield company says to apply the tape first, before applying any paint. The conductive tape ensures that all adjoining surfaces (wall to wall or wall to floor/ ceiling) are connected to the ground plate. At the location where you plan to install the ground plate, you first apply the tape to the wall in a cross pattern. Then paint a patch of Y-Shield paint over the wall and tape that has been applied in the cross pattern. Then install the grounding plate.

Continue to apply the tape in continuous strips on adjoining walls or on the wall and floor (or ceiling) to provide continuous grounding for all adjoining surfaces. Regarding the EBX10 Grounding Tape available from Safe Living Technologies (<https://safelivingtechnologies.com/grounding-tape-ebx10/?aff=6>), the glue on the EBX10 self-adhesive tape is electrically conductive. You can therefore apply the tape either before or after applying the full coat (or coats) of Y-Shield paint, although the Y-Shield company does prefer that you apply their tape to the wall first, under the full coat of paint. However, you always need to apply the tape to the wall before you attach the grounding plate over it, as noted above. The EBX10 tape is thin and barely visible once all layers of Y-Shield and top-coat paint are applied. If necessary, you can put it under a baseboard for horizontal applications.

If you purchase the Nickel, Copper and Cobalt Ni/Cu/Co Fabric Tape available from LessEMF (<https://www.aitsafe.com/go.htm?go=www.lessemf.com/paint.html&afid=51307&tm=90&im=#225>), which also comes in the Ground Kit for Shielding Paint (<https://www.aitsafe.com/go.htm?go=www.lessemf.com/paint.html&afid=51307&tm=90&im=#290-grd>), the adhesive on that tape is also electrically conductive.

Therefore, as with the EBX10 tape from Safe Living Technologies, you can also apply the Ni/Cu/Co Fabric Tape either under or over Y-Shield Paint. However, be sure to apply the tape under the ground plate.

Specific instructions on how to apply the grounding plate and EB2 tape are provided by Safe Living Technologies at <https://www.slt.co/Downloads/Shared/YSHIELD-Grounding-TDS.pdf> and by LessEMF at <https://www.lessemf.com/yshield-ground.pdf>. Safe Living Technologies provides the instruction sheet from the Y-Shield manufacturer, which says to apply your tape everywhere first, including under the grounding plate (they discuss use of EB1, EB2 and EB3 tape—you will be using the UBX10 tape, which has conductive glue like the UB1 and UB3 tapes described in the Y-Shield company's instructions). Then apply a square patch of paint under the location where the grounding plate will be installed, over the tape you just applied to the wall. Make the patch bigger than the edges of the plate. Let it dry. Then apply a second patch of Y-Shield and let that dry. Then screw down your grounding plate. The underside of the metal plate will contact the second patch of conductive Y-Shield paint, which is over the top of the conductive side of the tape.

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Don't paint Y-Shield over the top of the grounding plate. You will be placing a plastic cover over the grounding plate.

I can consult with the electrician about these points.

Important note: All tradespeople and clients who apply Y-Shield paint and ground it should first read the Important Safety guidelines found on the Y-Shield company Technical data sheet—Grounding (<http://www.slt.co/Downloads/Shared/YSHIELD-Grounding-TDS.pdf>) or the Grounding procedures notes found on the LessEMF Installation procedure for Ground-Connection-Set sheet, (<https://www.lessemf.com/yshield-ground.pdf>) before applying the paint and installing its grounding plate.

Important note about conductive paint and the National Electric Code (from LessEMF) “There is nothing in the NEC which prohibits painting your walls with conductive paint. However, because this product does NOT carry a UL listing, some electrical inspectors, by virtue of being the ‘Authority Having Jurisdiction’ can require the homeowner to hire an electrical engineer to certify that the product is safe to connect to the electrical ground. They can also require that a licensed electrician perform the ground connection. If your application requires an electrical inspection AFTER installation, you should check with your local inspector BEFORE you proceed to avoid any surprises.”

<https://www.lessemf.com/yshield-ground.pdf>.