

# **Create Healthy Homes**

## **Environmental Design and Inspection Services**

Oram Miller, BBEC  
Certified Building Biology® Environmental Consultant  
“EMF” Consultant  
11693 San Vicente Blvd., #342  
Los Angeles, California 90049

Phone 310.720.7686  
info@createhealthyhomes.com  
www.createhealthyhomes.com

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

Updated June 10, 2023

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 painted 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 wall. Certainly, do not put a cell booster or any wireless device transmitting WiFi or Bluetooth into a room painted 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 amplify within the room. This will especially be an issue for electrically sensitive individuals.

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.

## Y-Shield Paint Ordering and Installation Instructions

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. One liter of paint

covers up to 81 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 \$198.99 (U.S. Dollars) from Safe Living Technologies. They also offer 20 Liters (5.28 U.S. gallons) for \$779.00 (U.S. Dollars) , 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 \$99 by clicking [here](#). Purchase four U.S. gallons for \$359.00 U.S. Dollars by clicking [here](#). Payment can be made in four interest-free payments--see Safe Living Technologies website order page for details.

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](#), 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.)

## Y-Shield Paint Ordering and Installation Instructions

### 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 RF levels with two layers of Y-Shield without any grounding, however the consensus among many experts is that adding grounding improves the effectiveness of Y-Shield at blocking RF by up to 30%.

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.

## Y-Shield Paint Ordering and Installation Instructions

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).

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

## Y-Shield Paint Ordering and Installation Instructions

conductive Y-Shield paint, which is over the top of the conductive side of the tape.

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>.