Please note!

emfturtal

EMF SHIELDING PAINT PLV 2,5 (0.66 gal.) – Powder – Indoor + Outdoor

Important processing and safety instructions

Always use a complete bag (for 2,50 Litres / 0.66 Gallons = 1 bag) – Indoor/Outdoor – as during transport, individual ingredients can separate.

The EMF-TURTAL shielding-paint shields low-frequency and high-frequency radiation. Both alternating electric fields (e.g. alternating voltages in devices, cables and installations) and electromagnetic waves (e.g. from radio transmitters, directional radio, radar, mobile radio and cordless telephones) are shielded.

Application: Shielding Paint PLV 2,5 – Indoor/Outdoor –
Suitable for processing on untreated and absorbent substrates such as plaster, concrete, stone, gypsum plasterboard, gypsum fibre boards as well as on ingrain fibre, paper wallpaper, painter's fleece and dispersion paints. Unsuitable substrates are e.g. glue paints and lime paints, oil paints, plastic, metal, substrates with residual wallpaper glue.

For safety reasons, the paint coat must be grounded. The copper conductive strip available in our online shop under 'accessories' can be used for this purpose.

Important: The grounding may only be connected by qualified personnel (electricians). Since the shielding paint is electrically conductive, under no circumstances should live components be brought into contact with the paint. Failure to do so may result in injury or death!

- electrically conductive
- 30 dB to 50 dB shielding (effectiveness at 500 Mhz – 40 Ghz)
- made from natural raw materials
- very diffusible, sd value ~ 0.01m
- low odour, solvent-free
- overpaintable with most lime wall paints

Colour: anthracite grey

Suitable tools: For best results use quality paint rollers with a diameter of approx. 1.8 to 2.1 cm (we recommend an acrylic paint roller). Alternatively, a wide flat brush can be used to apply the shielding paint.

Preliminary work: The working ambient temperature should be at least 8°C/46F. Pour one bag of EMF-TURTAL PLV 2,5 for 2,5 litres / 0.66 gallons into a 10 litres / 2.64 gallons bucket and stir vigorously with 1.5 litres / 0.40 gallons of water using a stirring stick/wood. If necessary, gradually dilute further with water. Stir the entire mixture for at least 10 minutes with a machine stirrer for wall paint. The bulk density/volume of one EMF-TURTAL PLV 2,5 unit (one bag) is 2 litres / 0.30 gallons. This means: With the addition of approx. 1.5 litres / 0.40 gallons to a maximum of 1.75 litres / 0.46 gallons of water, you get 2,5 litres / 0.66 gallons to 2.75 litres / 0.72 gallons of shielding paint. The substrate must be load-bearing, dust-free, clean, dry, solid, grease-free and free from penetrating and colouring substances. After mixing, leave to stand for approx. 10 – 20 minutes and stir again, now the paint can be applied.

The substrate must be load-bearing, absorbent, dust-free, clean, dry, solid, free of grease and free of penetrating and colouring substances. Thoroughly wash and degrease old glue-based paints and other old paints (using a leach remover or silicone remover) and completely remove them. Remove old loose coats. Wash wallpaper glue residues thoroughly from the substrate. Thoroughly clean and sweep off dusty surfaces. Remove binder build-up and sintered skin on plaster surfaces on walls. Remove loose plaster and wall parts and repair with similar material. Clean mineral substrates affected by mould and treat with soda or other commercially available anti-mildew agents.

Shielding coatings: Two coats must be applied. Apply shielding paint with a brush, roller or brush, evenly and without build-up. The copper conductive strip must be thoroughly coated with the shielding paint. The second coat is easier to apply if the EMF-TURTAL shielding paint is diluted with approx. 5 % more water.

Dilution:
First stir the paint vigorously with a machine whisk and only dilute further with water if necessary.

Basic treatment: All untreated and absorbent substrates (all raw plasters, gypsum plasterboard, gypsum fibre) must be primed. Do not prime dispersion paints but clean well. Sand glossy dispersion paints additionally. Untreated paper wallpapers such as woodchip wallpaper and painter's fleece can be coated directly. **Grounding & copper conductive tape:** Peel off the protective foil from the self-adhesive copper conductive tape and stick it onto the wall to be shielded. This should be done in the immediate vicinity of a power socket. Fix at least 30 cm/12"to the wall – and leave at least 20 cm/8" for the connection to the earth contact of the socket or a separate earthing. Glue the grounding tape to the underside of the wall to be shielded about 5 cm/2" from the floor along its entire length. If you also paint the ceiling, also lead the earthing tape up to it at a distance of about 5 cm/2" from the edge of the wall. Each wall and ceiling surface should be grounded separately. After fixing, prime the copper conductive strip 1 x separately with the shielding paint and let it dry.

These combinations give good results:
1 x brush and roller plaster (Art. 165-167) and 1 x casein marble flour paint (Art. 105-108) or 1x Vega textured paint (Art. 2165-2167) and 1 x Vega wall paint (Art. 2165-2167). 2105-2108)

Overtape: The shielding paint can also be covered with wallpaper. To do this, fill the entire surface of the dried shielding paint with marble fibre plaster (Art. 947) or Vega fine plaster (Art. 2947). To apply the wallpaper, follow the manufacturer's instructions.

Cleaning the tools: Clean with water immediately after use. **Range:** On smooth and normally absorbent surfaces approx. approx. 200 ml / m² (0.3pints/sq yrd) per coat. On rough and absorbent surfaces, considerable additional consumption is to be expected. Two coats of shielding paint are required for reliable shielding. Exact consumption values must be determined on the object. **Drying time:** Overpaintable after approx. 2 – 4 hours – **Fully dried after approx. 8 hours. (Ventilate well!)** **Storage:** Store frost-free, airtight and below 25°C/80F. Can be stored in powder form (unopened) – unlimited when stored dry and frost-free. Mixed with water, we recommend to use the shielding paint within 3 days. After a longer service life, it is essential to stir thoroughly again with the machine stirrer (see above) to ensure uniform shielding.

Disposal of product residues: Do not add ink residues to the waste water. Ink residues can be disposed of in the dried condition into the household garbage. Empty packaging should be placed in the collection of recyclable materials. **Labelling: not applicable – no dangerous goods!**

Important notes & safety instructions:
Protect eyes and skin while processing the shielding powder (wear protective goggles and gloves). In case of eye or skin contact, rinse out with plenty of water and consult a doctor if necessary (eyes). Wear a dust mask during processing and avoid inhaling when pouring out of the bag. The colour has an extraordinary ability to dye. Do not paint surfaces, especially glass, ceramics, metal and wood, to protect them from product splashes or immediately remove product splashes with water (danger of irreversible stains!). Observe possible allergies to natural substances. **Store out of reach of children!**

A discoloration of the shielding paint after drying can occur when overpainting – since some in the trade available wall paints contain a lot of water – they may nevertheless be painted over.

Even if the EMF-TURTAL shielding paint strongly shields and absorbs 99.997 % of the incoming highfrequency radiation, it can happen that mobile and DECT telephones still function weakly after the use of the shielding paint. The radiation intensity through coated walls into rooms is nevertheless reduced to a minimum.

<u>Important:</u>
Make sure that neither WLAN nor mobile phones are used in a shielded room, since the shielding paint has reflective properties and thus radiated radiation within a room is prevented by the reflection of the I can amplify. We recommend that qualified personnel determine the radio exposure and the direction of the radio beam before each shielding measure in order to avoid unwanted negative effects. Please ask a building biologist – or look for a trade fair expert near you.

For professional high-frequency shielding, it may also be necessary to shield your windows and doors.