Technical Information No. 402

ElectroShield

402

Priming coat for the decrease of low and high-frequency electromagnetic pollution (electro-smog) interiors.

Product Description

Field of Application:
Black pigmented, special electroconductive coating material for large-area reduction of
– alternating electrical fields (low frequency), as e.g. alternating voltage in electric cables, installations, equipment, walls, etc.
– electromagnetic waves (high-frequency), as e.g. transmitters, radar, radio link systems, mobile (cell) phone, wireless phone, etc.
Highly suitable for use in sensitive areas, such as e.g. nurseries, bedrooms, living rooms, workrooms, hotel rooms, sickrooms, and surgeries, kindergartens, schools, etc.

Properties:
– Electroconductive, reduces over 99.5% of radiation.
– Emission-minimised and solvent-free.
– Water-thinnable, ecologically compatible, low odour.
– Promotes adhesion.
– Water vapour permeable.
– s_d value < 0.1 m

Vehicle:
Synthetic dispersion to DIN 55 945.

Density:
Approx. 1.25 g/cm³

Certificate:
Reducing effect (electromagnetic waves and low frequency electromagnetic fields) has been measured and confirmed by Prof. Pauli, high-frequency, hyperfrequency waves and radar technique department, University of German Federal Armed Forces, Munic. German test certificate available on request.

Colour:
Black.

Please Note (Status of June 2007):
Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water. Do not empty into drains, water courses and onto the ground.
Further information: See Safety Data Sheets.

Storage:
Cool, but frost-free.

Disposal:
Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Particular attention should be made to removing wastage from site in compliance with standard construction site procedures.
In Germany: Only completely emptied containers should be given for recycling. Dispose containers with residues of liquid material as remnants of water-based paints and dried material as hardened paints waste or via domestic waste.

Product Code Paints & Enamels:
M-GP01

Substances of Content · Declaration:
Acrylate dispersion, pigments, carbon fibres, calcium carbonate, water, additives, preservative.

Supplementary Product:
Disbon 973 Kupferband (copper strip)

Wellness paint for sound indoor climate

Tested by an independent institute

Packaging:
5 lit. and 12.5 lit.

Application

System of Application:
Deposit self-adhesive copper strip Disbon 973 approx. 20 cm wide nearby socket-outlets (provide for a sufficient projecting length / facility for proper connection) on the surface intended for earthing/grounding.
Press on and, if necessary, degrease with a synthetic thinner.
Apply two coats of undiluted ElectroShield.
Observe a waiting time of approx. 12 hours between the coats.
Prepare the copper strip area after having finished ElectroShield applications with a standard, solvent-based isolating primer.

Finishing Coat:
ElectroShield can be coated with CapaSan, Caparol-Sensitiv or all other Caparol dispersion or latex paints and with wood-chip, glass fibres, Capadecor AkkordVlies-Z or other types of wallpapers, synthetic renders/ plasters, etc.

Method of Application:
Apply generously and uniformly with a paint roller, then roll immediately wet-on-wet with a fine-textured roller made of Moltopren®, always in one direction.
After having finished this surface treatment a slight orange-texture is achieved.
The surface can be smoothed by a subsequent fine filler application with Caparol-Akkordspachtel, if desired.
ElectroShield is ready for use, but should be stirred well before application.
Clean tools immediately after use with water.

Note:
Connection of embedded copper strip for earthing/grounding of shielding must be operated by an electrical expert.
Each surface should be connected.
Connection can be executed e.g. via grounding conductor of sockets. For this the copper strip has to be connected with the socket.
Corresponding laying of electrical installation is a precondition. This has to be checked by the electrical expert before start of work.

Consumption:
Minimum 2 x 160 ml/m² on smooth substrates. This yields to an average dry film thickness of approx. 145 µm. On rough-textured surfaces correspondingly more. The exact rate of consumption is best established by a trial application on site.

Compatibility:
ElectroShield cannot be mixed with other materials.

Lower Temperature Limit for Application and Drying:
+5 °C for material, substrate, and ambient air.

Drying Time:
At +20 °C and 65% relative humidity recoatable after approx. 12 hours.
Lower temperatures and higher humidity extend the drying time.

Suitable Substrates and their Preparation

The substrate must be sound, dry, clean, and free from all materials that may prevent good adhesion.
In Germany: Follow VOB, Part C, DIN 18 363, Paragraph 3.

For suitability of ElectroShield on different substrates and corresponding pre-treatment our Technical Information No. 650 “Substrates and their Preparation” should be followed.

Advice

Technical Assistance

We are unable to cover the whole range of substrates encountered in practice and the proper treatment for coating all these surfaces in this technical information sheet. If the substrate you will be coating is not mentioned in this document, you will need to contact us or one of our sales consultants. We would be pleased to provide detailed advice for your particular project.

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Please see www.caparol.com

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