



Proshield Premium

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Proshield Premium is a conductive paint, with graphene, for shielding against electromagnetic waves. Designed for protection against radiation or interception of wireless network data. Also for amplifying electromagnetic waves in desired areas.

PRODUCT DESCRIPTION

Where to apply:

Ideal for protecting against electromagnetic radiation from telephone, radio and TV antennae and networks or electric power lines. Also, used for protection against interception of wireless network data. It enables strengthening of signals within the interior, which improves the productivity of systems such as RFID, WiFi, etc.

Recommended for hospitals, homes, offices, shops, laboratories, recording studios, etc.

Features:

- Electromagnetic waves shielding.
- Electric conductivity.
- Attenuation up to 7 dBm.
- Contains graphene fibres.
- Does not contain metallic components.
- Suitable for interior and exterior.
- Low VOCs emissions.

Yield:

Coverage depends on the type, texture and absorption of the substrate. As an estimate, we consider 6-7 m²/l. The exact consumption must be determined by means of a sample of the job.

Format:

Available in pots of 1 l, 4 l, 12.5 l y 15 l. Inquire about other formats.

Storage:

Keep in original pack, closed and in a cool and dry place. Keep from freezing and avoid direct sun exposure. Unopened, it may be conserved for at least 12 months. The product may thicken without losing its properties; shake well before use.

Technical properties:

Specific weight	ISO 2811-1	1.2 ± 0.05 g/cm ³
pH	-	9 ± 1
Viscosity	UNE 48076	120 ± 10 K.U.
% solids	-	35 ± 5 %
Appearance	-	Dense black liquid
Finish	-	Texturized

Components:

Carbon particles, contained in an emulsion of high quality pure acrylic in an aqueous medium. Does not contain metallic components.

APPLICATION INSTRUCTIONS

Conditions of the substrate:

The substrate must be dry, firm, well-adhered and free from any impurities that may hinder the product from setting fully.

Preparation of the substrate:

If the substrate contains impurities, it is recommended to clean it with pressurised water. Should there be colonies of mould, lichens, algae and bacteria, brush with sodium hypochlorite (bleach) and wait at least 48 hours before painting.

If the substrate is sandy, dusty, etc. brush and consolidate with *Minerseal Premium* diluted 3:1 with water.

If the substrate has salt deposits, brush and apply *Neutralysal Premium*.



If the substrate contains a high moisture level, apply *StopWater Premium*.

If the substrate presents surface cracks, the recommendation depends on the width of the crack:

1-3 mm	Apply <i>Füllmasse Premium</i> (with a fibreglass mesh if >1 mm).
3-10 mm	Chip superficially and apply <i>Naturglue Premium</i> with mesh.
>10 mm	Requires architectural assessment.

If the substrate presents scaling/blistering of the existing paint, scrape and brush before applying.

If the substrate presents deterioration of the existing mortar, the recommendation depends on the damaged depth:

1-3 mm	Scrape, brush and apply <i>Ecoputty Premium</i> .
3-8 mm	Wash with plenty of water, dry (24 hs) and apply <i>Naturglue Premium</i> with mesh.
8-20 mm	Clean with plenty of water, dry (24 hs), apply <i>MortarBase Premium</i> and finish with <i>Mortar-Fine Premium</i> (<10 mm) with a mesh.
>20 mm	Clean with plenty of water, dry (24 hs), apply <i>Naturglue Premium</i> (5 mm), apply tile according to width of the cavity (1-5 cm) and apply <i>Naturglue Premium</i> (<10 mm) with a mesh.

If the substrate contains pathologies such as moisture due to capillarity, condensation, leak, biodeterioration or movements of the substrate, etc., then it is necessary to resolve the structural problems first.

Depending upon the nature of the support, the recommendations listed above may vary as follows:

- Very absorbent substrates such as clay, adobe, rammed earth: apply *Minerseal Premium*.
- Substrate with no porosity such as glazed tiles, phenolic panels, epoxy or polyurethane paints: apply *Four2Four Premium*.
- Wood or metal substrates (without corrosion or oxidation): apply *Four2Four Premium*.

Product preparation:

Dilute with water at 20-25% of the product's weight and shake/mix well to ensure an even consistency.

Application method:

Apply a coat with an excess of material. It is recommended to moisture the roller; apply a coat upward and moisture again, successively. Do not apply repeatedly.

The installation of a ground connection must be completely covered.

The product must be protected after drying. It is recommended to install a drywall as a sandwich or to use the system: *Minerseal Premium* + *Graphenstone® paint*.

Drying:

In conditions of 25 °C and 60% relative humidity, wait 24 hours for drying.

Environmental conditions:

The work temperature (environment and substrate) must be greater than +5 °C and less than +32 °C. Do not apply in direct sunlight, nor on support heated by the sun.

Tools:

Roller or brush.

Tool cleaning:

Clean tools after use with warm water.

Notes:

The indicated times are for environmental conditions of 25 °C and 60% relative humidity.

The mineral substrate must be at least 28 days old.

Do not apply to surfaces in constant contact with water.

In case of rain, let the substrate dry for at least 48 hours before applying.

It is recommended to protect the treated surface from rain until its protection.

The parts that are not going to be treated must be protected (glass, wood, etc.).



Should there be strict aesthetic requirements, it is recommended to perform prior tests.

Do not mix with other products or specific properties may change.

Complementary products:

It is recommended to use the *Graphenstone®* product line for complementary actions, according to the required application, repair and/or finish. Please, refer to the relevant Technical Data Sheets.

DECLARATIONS

The manufacturer declares that the composition of the product, it does not contain hazardous substances or plasticisers and it has low VOC emissions.

ADDITIONAL INFORMATION

Usage warnings:

The armoured surface must be connected to a grounding connection, place an 8 x 8 cm metal plate installed on the wall with screws, and an adaptor that is directly connected to the outlet (or metal water or heating tube), connected by a grounding cable. This kit is not provided with the paint. It is recommended that a qualified professional conduct these connections.

Regarding the paint, none in particular for normal use and people who do not have special pathologies. Alkaline product, protect skin and eyes especially. Apply with good ventilation, do not inhale product. Keep out of reach of children.

Waste management:

According to local legal provisions. The packages are made of recycled polypropylene.

Safety information:

For information regarding safety, physical, ecological and toxicological information see the latest version of the product's Material Safety Data Sheet.

Technical substrate:

For further information, please contact your local distributor or manufacture:

technicalsupport@graphenstone.com.

The information provided is given in good faith, based on current knowledge and IEdiSA's experience with the products when they are properly stored, handled and applied in normal situations and in accordance with the recommendations of IEdiSA. The Technical Specifications sheet is useful for information and consulting, but is not legally binding. In particular, it does not exempt the user from testing and verifying the suitability of the product for the desired application and purpose. IEdiSA reserves the right to modifications that improve the product or its application. This version invalidates previous ones.