

## Proshield Premium

Version: oct-17

*Proshield Premium* is a conductive paint with graphene technology. These are carbon particles, contained in an emulsion of a pure acrylic of high quality in aqueous medium. Designed for protection against high and low frequency electromagnetic radiation.

### PRODUCT DESCRIPTION

#### Application area:

It is ideal for protection against electromagnetic radiation of telephone towers, radio antennas, television repeaters and / or for the protection of data interception of wireless networks. Also, to amplify indoor signals that improve the productivity of RFID, Wi-Fi, etc. systems. Recommended in hospitals, houses, offices, shops, laboratories, recording studios, etc.

#### Features:

- Electric conductivity.
- Protection of high frequency radiation.
- Protection of low frequency electric field.
- 30 dB of attenuation at 900 MHz (IEEE 299:2006).
- Contains graphene fibres.
- Does not contain metallic components.
- Suitable for interior and exterior.
- Low VOCs emissions.

#### Technical properties:

Specific weight	1.15 ± 0.05 g/cm <sup>3</sup>
pH	7 ± 1
Viscosity	[70 - 120] U.K.
Solid content	38 ± 5 %
Nature	Carbon particles in an acrylic emulsion
Solvent	Water
Appearance	Black dense liquid
Finish	Matte

#### Yield:

4-5 m<sup>2</sup>/l (2 coats). It depends on the type and condition of the substrate. The exact consumption must be determined by the means of a sampling of the work.

#### Format:

Available in pots of 1 l, 4 l, 12.5 l, 15 l.

#### 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 from the date of manufacture. The product may thicken without losing its properties; shake well before use.

### APPLICATINO INSTRUCTIONS

#### Application surfaces:

Plaster, gypsum, old paints, prefabricated panels and unpainted wallpaper, brick, etc.

#### 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 presents algae, mold, fungi and / or other impurities, it is recommended to do a thorough cleaning, eliminating in its entirety and with specific products for this purpose.

If the substrate has poor adhesion (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* diluted 1:1 with water and paint 24 hours before its application.

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 fiberglass 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, first remove areas that do not adhere by scraping and brushing.

If the substrate presents deterioration of mortar, first remove areas that do not adhere by scraping or pricking and clean up by brushing or plenty of water. The recommendation depends on the damaged depth:

< 3 mm	Apply <i>Ecoputty Premium</i> .
3-8 mm	Apply <i>Naturglue Premium</i> with mesh.
8-20 mm	Apply <i>MortarBase Premium</i> and finish with <i>MortarFine Premium</i> (<10 mm) with mesh.
>20 mm	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 presents pathology such as structural cracks, moisture by capillarity, condensation or filtration, etc.; then it is necessary to resolve the structural problems first.

Depending upon the nature of the substrates, the previous actions vary as follows:

- Old glossy paint or putty: clean surfaces and sand slightly.
- Absorbent substrates (ex. cement blocks, brick, plaster, etc.): apply *AmbientPrimer Premium*.
- Very absorbent substrates (clay, adobe, rammed earth, etc.): apply *Minerseal Premium*.
- If the substrate is wood or metal (without corrosion or oxidation) or without porosity: apply *Four2Four Premium*.

### Electrical installation:

The surface to be shielded must be connected to an electrical ground. Make the connection for each discontinuous section to be shield. It is recommended that these connections be made by a qualified professional.

### Application method:

Apply (undiluted) two coats of products leaving the surface as even as possible. The electrical grounding system must be covered in its entirety.

After drying, the product must be protected. It is recommended to place a plasterboard in sandwich mode or with *Graphenstone®* paint.

### Drying:

In conditions of 25 °C and 60% relative humidity: 2-4 hours between layers and 24 hours for drying.

### Environmental conditions:

The work temperature (environment and substrate) must be between +5 °C and +32 °C. Do not apply in direct sunlight or on supports heated by the sun.

### Tools:

Brush or short hair roller.

### Tool cleaning:

Clean tools after use with warm water.

### Notes

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 before applying.

It is recommended to protect the treated surface from rain until its later 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, due to the composition of the product, it does not contain hazardous substances, metallic components, or plasticizers. Low VOC emitting product.

## ADDITIONAL INFORMATION

### Usage warnings:

None in particular for normal use and people who do not have special pathologies. 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 pots are made of recycled polypropylene. Help protect the environment, do not throw waste through the drain and use the nearest recycling centre.

### Responsible gesture:

Minimize the product waste by estimating the amount you will need. Recover the unused mortar to give it a new use, keep it under the Storage section.

### Safety information:

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

### Technical support:

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

[technicalsupport@graphenstone.com](mailto:technicalsupport@graphenstone.com)

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