



GRAPHENSTONE

THE ORIGINAL & AUTHENTIC

Application Manual

Application Manual

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MAINTENANCE GUIDELINES

Preliminary Remarks

The guidelines provided in this manual are given in good faith, based on Graphenstone®'s current knowledge and experience of its range of products, when properly stored, handled and applied, in normal conditions and in accordance with Graphenstone®'s recommendations. The guidelines refer only to the application and products expressly specified. The information here provided does not exempt the user from previously testing the products for the intended application and purpose.

Support and application conditions:

- **Substrate must be dry, firm, well adhered and free of any impurity that may hinder the perfect anchoring of the product.**
- If the substrate presents impurities, it is recommended to carry out a thorough cleaning, completely eliminating any rest of algae, microorganisms and other impurities with specific products for such purpose.
- If the surface presents pathologies such as structural cracks, capillary moisture, condensation or filtration, it is necessary to first address the architectural problem that generates the pathology to obtain a good and long-lasting result.
- Apply the products only when temperature of surfaces to be painted and ambient air temperatures are between 5 and 32 degrees C (41 and 90 degrees F). Do not apply on surfaces heated by the sun or exposed to direct sunlight.
- For areas where microorganisms such as algae, fungi and bacteria are likely to proliferate, it is recommended to previously apply a coat of **AmbientPrimer Premium L44**, for both interior and exterior surfaces.
- The drying times here specified are measured considering weather conditions with temperatures between 20-30 degrees C (68-86 degrees F) and relative humidity between 60-70%.
- The application of products in exterior surfaces is not recommended during rainy season, unless the surface is protected from rain and longer drying times are considered.

Post-application conditions:

- It is recommended to protect the treated surface from rain and/or high humidity for at least 4 days.
- The total curing (carbonatation process) occurs after 30 days, it is recommended to avoid cleaning and/or rubbing during that time.

Please refer to each product's technical data sheet, available on the website www.graphenstone.com.

In case of doubt or for further information regarding application on substrates other than those included in this manual, please consult Graphenstone® Technical Department before using the products:
technicalsupport@graphenstone.com

PAINTS



Lime-based Premium Paints

Graphenstone lime-based paints comply with the most demanding sustainability standards, offering excellent environmental and health benefits. Manufactured with high-quality artisanal lime and Graphene technology, Graphenstone lime-based paints are one of a kind.

These paints have a matte finish, allow for highly breathable surfaces, are free of toxic substances, virtually odorless and absorb CO₂ during the carbonatation process.

Ideal for construction, repainting, restoration of heritage buildings and sustainable renovations. Recommended for residential spaces, hotels, museums, hospitals, schools, commercial projects, etc.

Biosphere Premium is a natural paint with matte finish, suitable for exterior walls. Its high reflective power and thermal emittance helps reduce energy demand and costs.

Italy Pavillion in Seville (Spain)



Ecosphere Premium is a natural paint with matte finish, suitable for interior walls. Creates a highly breathable coating that prevents condensation, ideal for surfaces with moisture by capillary action.

Single-family home in Kiev (Ukraine)



AmbientPro+ Premium is a natural, photocatalytic paint that purifies the air through the decomposition of NO_x (polluting chemicals) in the presence of light, reducing pollution and ambient odors.

Sports center Mairena del Alcor (Spain)



S-P-01050 EPD®
environdec.com



Colours:

Available in White and Soft Selection colour chart.

Tools:



Roller, brush, airless spray and other common tools. A short nap roller is recommended, for example 3/8 inch nap roller (10mm), but a long nap roller can also be used. *Wash painting tools in warm water immediately after use.*

Airless: Nozzle angle: 30°. Spraying distance: 50-60 cm (20 – 24 inches).

Recommended tip size: 0.027 inch. Sprayer minimum power: 1100 W. Maximum flow rate: 4 L/min.

Coverage/yield:

White: 5 - 7 m²/L (2 coats). 200 – 285 Sq. Feet per gallon (2 coats).

Colours: 7 - 9 m²/L (2 coats). 285 – 360 Sq. Feet per gallon (2 coats).

Coverage might vary depending on substrate texture and porosity, tools used and application method. Exact performance must be determined by doing prior on-site tests.

Application surfaces and substrate conditions:

Paints can be applied on all types of common surfaces in construction, like new or previously painted wallboard, plaster and masonry or non-laminated wallpaper in interiors and also unglazed brick, concrete, stucco or cinder block in exterior.

Support must be dry, firm, well adhered and free of oil, dust, mildew, peeling paint or other contamination to ensure good adhesion.

If the substrate presents impurities, it is recommended to carry out a thorough cleaning, completely eliminating any rest of algae, microorganisms and other impurities with specific products for such purpose.

Substrate preparation:

- Old glossy or satin paints and putties: clean and sand lightly the surface before repainting.
- Absorbent substrates (ex. Cinder block, brick or plaster): apply a first coat of **AmbientPrimer Premium**.
- Very absorbent substrates (clay, adobe or rammed earth): apply **Minerseal Premium**.
- Non-porous substrates (tiles, phenolic panels, epoxy or polyurethane paints), wood or metal (non-rusted metals): apply **Four2Four Premium** as bonding primer.

If the surface presents pathologies, please contact our Technical Service Department.

Product preparation and thinning:

Stir and thin with water to 5-10% of the product weight (13 – 19 fl. oz. of water to a gallon of paint) and ensure a homogeneous mixture. Avoid excessive shaking to minimize bubble occlusion.

Application:

Apply 2 or 3 coats evenly. Paint in sections starting with the borders. Without soaking the paint roller, pass the roller to spread out the paint correctly. Do not paint drying areas, avoid overlapping.

Attention: an excess of product per coat can create micro-fissures.

Due to the nature of lime-based paints, hiding power can't be correctly appreciated immediately after applying a first coat. Thickness and hiding power is obtained through the absorption of CO₂ during the carbonatation process of the paint. After 30 minutes drying, a better hiding power can be observed. For this reason, it is important to respect the drying time between coats (2-4 hours).

Drying time and ambient conditions:

Dry time at 25 °C (77 °F) and 60% relative humidity: 2-4 hours to recoat and 24h for total drying.

The total curing of the products occurs after 30 days, maximizing hardness and resistance of the paint. It is recommended to avoid cleaning and/or rubbing during that time.

Apply the products only when temperature of surfaces to be painted and ambient air temperatures are between +5 and +40 degrees C (41 and 104 degrees F). Do not apply on surfaces heated by the sun or exposed to direct sunlight.



GrafClean Premium Paints

GrafClean is an EcoGreen paint line formulated with water-borne emulsion and Graphenstone technology. Its formula contains no VOC¹ or alkylphenol ethoxylates (APEOs).

Suited for interior and exterior, GrafClean line is an environmentally friendly alternative to conventional paints on the market. The products offer easy application, great washability and is available in white, as well as in a wide selection of interior and exterior colours, including deep and dark hues.

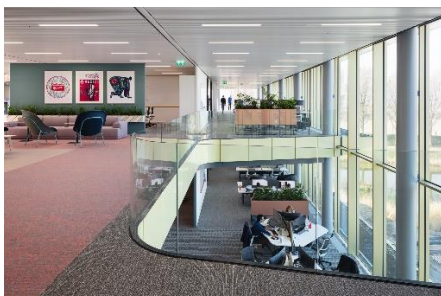
Matte finish and free of toxic substances. Breathable. Virtually odorless.

Ideal for construction, repainting and restoration of heritage buildings. Recommended for application on residential spaces, hotels, museums, hospitals, schools, commercial projects, etc.



Grafclean Premium is an EcoGreen paint for interior and exterior. Certified *Indoor Air Comfort GOLD*.

ASICS Headquarters (The Netherlands)



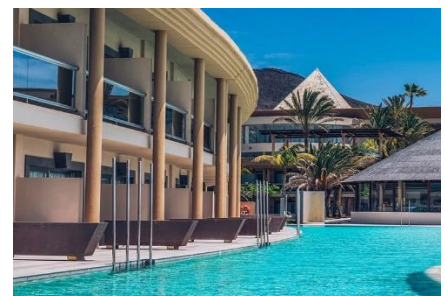
Grafclean EXT Premium is an EcoGreen paint, ideally suited for facades in areas with high relative humidity.

Community Housing (Seville)



GrafClean Front Premium is an EcoGreen paint, recommended for facades when intense colours are required.

*Iberostar Fuerteventura Palace 5**



Grafclean Ag+ Premium is a paint formulated with Silver Ions with antimicrobial properties.



Grafclean Therm Premium is an EcoGreen paint with thermal and anti-condensation properties.

GrafClean Silky Premium is an EcoGreen paint with smooth matte finish.



¹ No VOCs (volatile organic compounds) have been intentionally added to this product or its pigments, although trace amounts of VOC may be present as residual components of other ingredients.

Colours:

Available in White, NCS 980 colour chart for interior and NCS 322 for exterior.

Tools:

Roller, brush, airless spray and other common tools.



A short nap roller is recommended, for example 3/8 inch nap roller (10mm), but a long nap roller can also be used.

Wash painting tools in warm water immediately after use.

Airless: Nozzle angle: 30°. Spraying distance: 50-60 cm (20 – 24 inches).

Recommended tip size: 0.027 inch. Sprayer minimum power: 1100 W. Maximum flow rate: 4 L/min.

Coverage/yield:

White: 5 - 7 m²/L (2 coats). 200 – 285 Sq. Feet per gallon (2 coats).

Colours (Pastel, Medium and Transparent): 6 - 8 m²/L (2 coats). 245 – 325 Sq. Feet per gallon (2 coats).

Coverage might vary depending on substrate texture and porosity, tools used and application method. Exact performance must be determined by doing prior on-site tests.

Application surfaces and substrate conditions:

Paints can be applied on all types of common surfaces in construction, like new or previously painted wallboard, plaster and masonry or non-laminated wallpaper in interiors and also unglazed brick, concrete, stucco or cinder block in exterior.

Support must be dry, firm, well adhered and free of oil, dust, mildew, peeling paint or other contamination to ensure good adhesion.

If the substrate presents impurities, it is recommended to carry out a thorough cleaning, completely eliminating any rest of algae, microorganisms and other impurities with specific products for such purpose.

Substrate preparation:

- Old glossy or satin paints and putties: clean and sand lightly the surface before repainting.
- Absorbent substrates (ex. Cinder block, brick or plaster): apply a first coat of **AmbientPrimer Premium**.
- Very absorbent substrates (clay, adobe or rammed earth): apply **Minerseal Premium**.
- Non-porous substrates (tiles, phenolic panels, epoxy or polyurethane paints), wood or metal (non-rusted metals): apply **Four2Four Premium** as bonding primer.

If the surface presents pathologies, please contact our Technical Service Department.

Product preparation and thinning:

Stir and thin with water to 10-15% of the product weight (19 – 26 fl. oz. of water to a gallon of paint) and ensure a homogeneous mixture. Avoid excessive shaking to minimize bubble occlusion.

Application:

Apply 2 or 3 coats evenly. Paint in sections starting with the borders. Without soaking the paint roller, pass the roller to spread out the paint correctly. Do not paint drying areas, avoid overlapping.

Attention: an excess of product per coat can create micro-fissures.

Dying time and ambient conditions:

Dry time at 25 °C (77 °F) and 60% relative humidity: 2-4 hours to recoat and 24h for total drying.

The total curing of the products occurs after 30 days, maximizing hardness and resistance of the paint. It is recommended to avoid cleaning and/or rubbing during that time.

Apply the products only when temperature of surfaces to be painted and ambient air temperatures are between +5 and +40 degrees C (41 and 104 degrees F). Do not apply on surfaces heated by the sun or exposed to direct sunlight.



Proshield Premium shielding paint

Proshield Premium is a conductive paint with Graphenstone technology. ProShield is a water-borne paint, formulated with carbon particles in a pure, high quality acrylic emulsion, designed for shielding against EMF & RF frequencies and EMR radiation.

Ideal for reducing electromagnetic radiation from cell towers, radio antennas, television transmitters and/or for protection against data interception from wireless networks. ProShield can also be used to improve productivity of WiFi, RFID or other system signals within a specific room or area.

Recommended for commercial stores and warehouses, hospitals, residences, corporate spaces, laboratories and recording studios.



Tools:

Short-nap roller, brush, airless spray and other common tools.

Wash painting tools in warm water immediately after use.

Airless: Nozzle angle: 30°. Spraying distance: 50-60 cm (20 – 24 inches).

Recommended tip size: 0.027 inch. Sprayer minimum power: 1100 W. Maximum flow rate: 4 L/min.



Coverage/yield:

5 - 7 m²/L (2 coats). 200 – 285 Sq. Feet per gallon (2 coats).

Coverage might vary depending on substrate texture and porosity, tools used and application method. Exact performance must be determined by doing prior on-site tests.

Application surfaces and substrate conditions:

Paints can be applied on all types of common surfaces in construction, like new or previously painted wallboard, plaster and masonry or non-laminated wallpaper.

Support must be dry, firm, well adhered and free of oil, dust, mildew, peeling paint or other contamination to ensure good adhesion.

If the substrate presents impurities, it is recommended to carry out a thorough cleaning, completely eliminating any rest of algae, microorganisms and other impurities with specific products for such purpose.

Product preparation and thinning:

Stir and apply, no thinning is necessary in most circumstances. It is not necessary to dilute the product, it is ready to use as is. If required, thin with water to 5% of the product weight (13 fl. oz. of water to a gallon of paint) and ensure a homogeneous mixture. Avoid excessive shaking to minimize bubble occlusion.

Application:

Apply 2 coats evenly, creating a wall surface as even as possible. The electrical grounding system should be completely covered by paint.

After drying, the product must be protected. Proshield is intended to be over-painted with Graphenstone wall paint or covered by plasterboard panels.

Drying time and ambient conditions:

Dry time at 25 °C (77 °F) and 60% relative humidity: 4-6 hours to recoat and 24h for total drying.

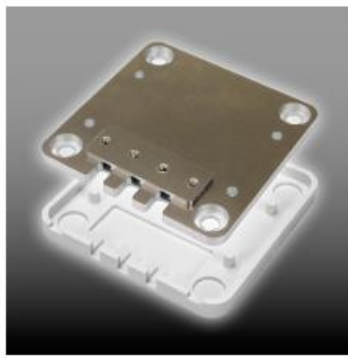
Apply the products only when temperature of surfaces to be painted and ambient air temperatures are between +5 and +40 degrees C (41 and 104 degrees F). Do not apply on surfaces heated by the sun or exposed to direct sunlight.

Proshield Premium is a conductive paint. For safety reasons, it is recommended to connect the painted surface to an electrical ground connection. If the painted surface has wall outlets or other electrical equipment, ground connection will avoid the generation of low frequency electric fields by coupling with the electrical system of the house.

Follow the guidelines for an easy connection. Create a ground connection for each discontinuous section painted with ProShield. Please note, grounding must be done by a qualified professional. Always turn off the power supply before proceeding with the connection.

The most common system consists of a metal plate (75 x 75 mm or 3 x 3 inches) that is installed on the wall painted with ProShield with screws, a grounding plug, and a cable to connect both, the plate and adapter. It is recommended to set the plate near a wall outlet (using a short 20 cm cable), but 1, 2, 5 and 10 meter cables are available if needed. Other options are:

- Connecting the cable to a metal pipe using an adapter, if available outlets are not grounded.
- Using a thinner grounding plate and mount it in the baseboard area (150 x 30 mm).



Grounding plate



Plug adapter



Grounding cable

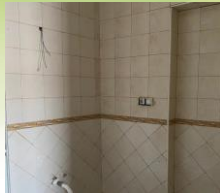
Grounding. Installation procedure on walls:

1. The metal plate is installed over the **Proshield Premium** painted surface. Choose the position of the plate and mark drill locations using the plate as a guidance. Drill and insert the plastic anchors into the holes. Apply a second coat of shielding paint to the area where the grounding plate will be mounted. Respect drying times.
2. Set the grounding plate on the wall. Tighten the screws to ensure a good connection between the plate and the paint coating. Make sure the cable is long enough to cover the distance to the grounding point (usually an electric outlet).
3. **Proshield Premium** is intended to be coated and protected with any of Graphenstone's paints. Put a masking tape over the metal plate before painting the wall. Once the finish coat of the decorative paint has dried, remove the masking tape.
4. Connect the other end of the grounding cable to the adapter and plug in the adapter.

Preparation Steps by Surface Type

Substrate must be **dry, firm, well adhered and free of any impurity** that may hinder the perfect anchoring of the product, like peeling paint, loosing material, grease or dirt.

SURFACE TYPE	PRIMER	RECOMMENDED STEPS
	Repainting	Eliminate imperfections. Paint.
	Gypsum plaster	Make sure the substrate is dry. Sand the surface. Use thinned/diluted paint for a first coat. Paint.
	Perlite plaster	Make sure the support is dry. Sand the surface. Apply thinned/diluted paint as a first coat. Paint.
	Gypsum Board - Plasterboard	AmbientPrimer Premium Sand joints and other imperfections. Apply <i>AmbientPrimer Premium</i> (homogenises absorption). Paint.
	Metal	Four2Four Premium Apply <i>Four2Four Premium</i> (ensures paint adherence). Paint.
	Wood	Four2Four Premium Apply <i>Four2Four Premium</i> (ensures paint adherence). Paint.



Tile

**Four2Four
Premium**

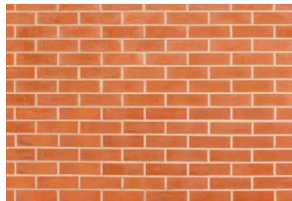
Apply *Four2Four Premium* (ensures paint adherence).
Paint.



Phenolic panels
and Fiber cement
siding/cladding

**Four2Four
Premium**

Apply *Four2Four Premium* (ensures paint adherence).
Paint.



Brick - Mansony

**AmbientPrimer
Premium**

Apply *AmbientPrimer Premium* (homogenises absorption).
For glazed brick, use instead *Four2Four Premium* to ensure paint adherence.
Paint.



Concrete

For polished concrete surfaces, apply *Four2Four Premium* to ensure paint adherence.
Apply thinned/diluted paint as a first coat. Paint.



Cinder blocks

Apply thinned/diluted paint as a first coat. Paint.



Cement
render/stucco

**AmbientPrimer
Premium**

Apply *AmbientPrimer Premium* as sealer if needed.
Apply thinned/diluted paint as a first coat. Paint.



Lime
stucco/render

Apply thinned/diluted paint as a first coat. Paint.



Rammed Earth -
Adobe -
Very absorbent
walls.

**Minerseal
Premium**

Apply *Minerseal Premium* (consolidating treatment).
Paint.

Airless Application

Graphenstone paints have been tested for airless spray application with an airless gun with the following specifications:

Maximum flow rate: 4 L/min

Max. Pressure: 220 bar

Motor power: 1,1 kW

Max. Tip size: 0,027"

Gun position: 30° angle. Spraying distance: 50-60 cm (20 - 24 inches).

Recommended tip size: 0.027 inch.

Sprayer minimum power: 1100 W..



Tested nozzles:

15-40 Nozzle. Internal diameter 0,015" = 0,38 mm; Nozzle angle 40°. Recommended for fine finishes. 1,10 liters per minute.

19-40 Nozzle. Internal diameter 0,019" = 0,43 mm; Nozzle angle 40°. 1,77 liters per minute.

13-20 Nozzle can be used in small areas for touch-ups. A greater quantity of paint is applied in a smaller area, generating higher film thickness. To paint larger surfaces such as industrial buildings, use the 19-60 Nozzle, which will allow for faster painting when a fine finish is not required.

Graphenstone paints have low/medium viscosities. For this reason, nozzles up to 21 are recommended. The lower the viscosity, the smaller the nozzle can be used.

When using an airless gun with similar technical properties to the ones specified above, nozzles between 15 and 19 are recommended. For small touch-ups, ideally use a 13 nozzle.

The background of the entire page is a teal-colored marbled paper. The marbling pattern consists of irregular, flowing veins and patches of slightly different shades of teal and green, creating a complex, organic texture.

DECORATIVE FINISHES

Stuki Premium

Stuki Premium is a lime-based natural coating with graphene technology for venetian stucco/plaster finishes. Perfect for achieving different finishes and textures in high-end decoration projects. Thanks to the Graphenstone technology, it is a highly flexible material with excellent workability and great coverage. Free of toxic substances. Virtually odorless. Absorbs CO₂.

Ideal for projects using sustainable and healthy building practices, rehabilitation and restoration of historical buildings.



S-P-01050 EPD®
environdec.com



Colours:

Available in White, NCS 980 colour chart for interior and NCS 322 colour chart for exterior.

Tools:

Stucco or plastering trowel, Japanese trowel, electric polisher (optional).

Wash tools in warm water immediately after use.



Coverage/yield:

4 - 5 m²/L (2 coats). 160 – 200 Sq. Feet per gallon (2 coats).

Coverage might vary depending on substrate texture and porosity, tools used and application method. Exact performance must be determined by doing prior on-site tests.

Application surfaces and substrate conditions:

Stuki Premium can be applied on all types of common surfaces in construction.

Support must be dry, firm, well adhered and free of oil, dust, mildew, peeling paint or other contamination to ensure good adhesion.

If the substrate presents impurities, it is recommended to carry out a thorough cleaning, completely eliminating any rest of algae, microorganisms and other impurities with specific products for such purpose.

Substrate preparation:

For common surfaces in good condition, it is recommended to apply a first coat of Graphenstone® paint thinned or diluted with water at 15%. Allow it 24 hours to dry before the application of *Stuki Premium*.

Some surfaces might need additional preparation:

- Old glossy or satin paints and putties: clean and sand lightly the surface before repainting.
- Absorbent substrates (ex. Cinder block, brick or plaster): apply a first coat of **AmbientPrimer Premium**.
- Very absorbent substrates (clay, adobe or rammed earth): apply **Minerseal Premium**.
- Non-porous substrates (tiles, phenolic panels, epoxy or polyurethane paints), wood or metal (non-rusted metals): apply **Four2Four Premium** as bonding primer.

If the surface presents pathologies, please contact our Technical Service Department.

Product preparation and thinning:

Shake component A (liquid) beforehand and slowly add component B (solid), stirring mechanically until the mixture is homogeneous.

Application:

Apply the recommended primer according to the substrate preparation guidelines or apply a first coat of Graphenstone® paint thinned or diluted with water at 15%. Allow it 24 hours to dry before the application of *Stuki Premium*.

Apply 2 or 3 coats while creating the desired effect and finish. Polish by hand or with an electric polisher. If the product dries, spray water to restore the workability of the product.

It is important to allow the product to dry 1 hour between coats.

Drying time and ambient conditions:

Dry time at 25 °C (77 °F) and 60% relative humidity: 1 hour to recoat.

Allow it to dry for 30-40 minutes before polishing by hand and at least 90 minutes before using an electric polisher.

24 hours for final protection.

The total curing of the products occurs after 30 days, maximizing hardness and resistance of the paint. It is recommended to avoid cleaning and/or rubbing during that time.

Apply the products only when temperature of surfaces to be painted and ambient air temperatures are between +5 and +40 degrees C (41 and 104 degrees F). Do not apply on surfaces heated by the sun or exposed to direct sunlight.





PRIMERS AND TREATMENTS

Primers

AmbientPrimer Premium is a colourless primer, recommended for very absorbent substrates or as a sealer for some surfaces. The product homogenises and reduces the absorption of the substrate. Ideal as a primer before *AmbientPro+ Premium* paint, since it guarantees the stability and durability of the photocatalytic properties over time.

Two versions are available: L42 and L44, this last one containing anti-algae effect.

Thinning: 1:1 with water / Yield: 25-35 m²/L / Drying: 24 hours / Tools: Roller, brush or airless



Filler Premium is a mineral primer with Graphenstone technology. Recommended for surfaces with irregular textures, fissures and cracks (up to 1mm) or peeling areas. For indoor and outdoor use.

Thinning: 10-15% with water / Yield: 5-7 m²/L / Drying: 4-6 hours / Tools: Roller or brush



Primer Plus is a lime-based primer with white matte finish. Its high pH naturally cleans the surface from bacteria. Absorbs CO₂. Ideal as a natural first coat on interior and exterior paints. Free from microplastics.

Thinning: 10-15% with water / Yield: 14-20 m²/L / Drying: 24 hours / Tools: Roller, brush or airless



Four2Four Premium is a bonding primer to be used as a first coat on non-porous surfaces. It ensures paint adherence on interior and exterior tiles, phenolic panels, polyurethane coatings, etc. Four2Four also acts as a rustproofing agent on metal surfaces, preventing corrosion and oxidation, and as a sealant for wood, MDF panels and stains on interior walls.

Thinning: no needed / Yield: 11-14 m²/L / Drying: 6-8 hours / Tools: Roller, brush or airless



Contak Premium is a bonding primer, recommended for improving the mechanical bonding of mortars in smooth surfaces, such as glass, tiles, metals, wood, polished concrete and more.

Thinning: no needed / Yield: 9-12 m²/L / Drying: 24 hours / Tools: Roller or brush



Treatments

Minerseal Premium is a consolidating mineral treatment that maintains the surface permeability to gases and water vapour. It protects mineral finishes, consolidates sandy or dusty substrates and reduces absorption in very absorbent surfaces.

Thinning: 3:1 with water / Yield: 13-16 m²/L / Drying: 24 h / Tools: Roller, brush or airless



Neutralysal Premium is a colourless saltpeter resistant treatment. Designed for walls that have been degraded by saltpeter. It prevents the appearance of white stains caused by the absorption of water capillarity with salinity from the wall. *Neutralysal Premium* is a treatment and should be protected with a finishing product or paint.

Thinning: no needed / Yield: 7-8 m²/L / Drying: 24 hours / Tools: Roller, brush or airless



StopWater Premium is an anti-moisture treatment that acts temporarily to ensure the adhesion of the paint or coating on humid substrates. Once the paint applied, the product naturally degrades due to the high pH of Graphenstone coatings.

Thinning: 1:1 with water / Yield: 28-32 m²/L / Drying: 6-12 horas / Tools: Roller, brush or airless



Hydroxeal Premium is a hydrophobic treatment with colourless, matte finish, for protecting surfaces in very humid or polluted areas. It acts as a water repellent without significantly altering the permeability of the substrate to gases and water vapor.

Thinning: no needed / Yield: 100-200 mL/m² over paint. 300-400 mL/m² over mortar / Drying: 24 hours / Tools: Roller, brush or airless



Beewax Premium is a natural beeswax for the protection of lime-based stuccos and venetian plasters. It is suitable for interior and exterior and it prevents the absorption of water, contaminants and stains in the coating, thus not significantly altering the substrate's permeability to gases and water vapors. *Beewax Premium* also increases the product sheen and protects intense colours.

Thinning: no needed / Yield: 30-40 m²/L (1 coat) / Drying: 24 hours / Tools: Sponge, trowel or paint mitt



Application Procedures

Graphenstone Finishes

A1. Surface Pretreatment for Finishes

Certain surfaces require a pretreatment before coating application.

A1.1. Wood, Metallic Surface or non-porous Surfaces

Wood surfaces must be sealed to prevent the appearance of tannins in the future, as they cause the staining of finishes. This requires the use of a water-based wood sealer. On the other hand, metallic surfaces (with no corrosion or oxidation) must be protected from oxidation by using an antioxidant product. Non-porous surfaces, such as polyurethane, epoxy, glossy paint or enamel, glass tiles, granite stone, phenolic boards or fiberglass-reinforced plastic boards require prior application of a mortar bonding layer:



- Apply one coat of **Four2Four Premium** without dilution and let it dry for 24 hours.

Occasionally, a chemical product may be added to concrete walls for formwork stripping, which leaves remains on the wall, that decrease the adherence of mineral paint. This pretreatment must be applied if there is no information available, or if an on-site paint adhesion test is required.

A1.2. Absorbing Surface Finishes

As an option, for absorbent substrates such as plaster, mortar or concrete blocks, high absorption can be minimized to ensure a homogeneous finish:

- Apply a layer of **AmbientPrimer Premium** diluted with water with a 1:1 and let dry for 24 hours.

A1.3. Very Absorbing Surface Finishes

On very absorbing surfaces, such as adobe bricks or CEB, minimize the high absorbency to ensure a homogeneous finish:

- Apply a coat of **Minerseal Premium** and let dry for 24 hours.

	Four2Four	Contak	AmbientPrimer	Minerseal
Regular substrate	11-14 m ² /l	9-12 m ² /l	13-17 m ² /l	13-16 m ² /l



A2. Exposed Surface Finish

A2.1. Water-resistant protection

Surfaces such as concrete walls or limestone do not require consolidation. However, applying water-resistant protection in bricks or mortars in areas with a high moisture level (tropics, basins, interior pools, etc.) or highly polluted areas, a waterproof treatment is recommended.



- Apply **Hydrox Seal Premium** until the surface is completely saturated. In general, 1 or 2 coats will suffice. Consecutive layers must be applied on a semihumid status. To achieve water-resistance, please apply the indicated quantities.

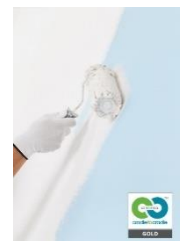
Hydrox Seal (1:1)

Decorative ceramic, limestone, rustic, CEB or adobe brick	200-300 ml/m ²
Mortar, render, plaster	300-400 ml/m ²
Concrete walls	200-300 ml/m ²



A3. Finishes with Graphenstone Paint

After applying the proper pretreatment required by the surface, applications on surfaces with synthetic mastic require sanding the surface lightly to ensure adherence of the paint.



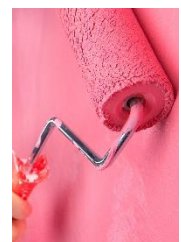
A3.1. Graphenstone White Paint

For finishes with **Ecosphere Premium** indoors and **Biosphere Premium** outdoors:

- Apply 2 or 3 coats of **Ecosphere/Biosphere Premium** diluted with 10% of its weight in water for the first coat and with 5% for all successive coats, allowing 4 hours between layers. In absorbing surfaces, apply the first coat diluted with 15% its weight in water

A3.2. Graphenstone Color

- Apply 2 or 3 coats of GrafClean Premium diluted with 15% of its weight in water for the first coat and with 10% for all successive coats, allowing 4 hours between layers



A3.3. Graphenstone Photocatalytic System

For a photocatalytic solution:

- Apply one coat of **AmbientPrimer Premium** diluted with water with a 1:1 ration. Let dry for 24 hours.
- Apply 2 or 3 coats of **AmbientPro+ Premium** diluted with 5-10% its weight with water, allowing four hours between layers.



	AmbientPrimer (1:1)	Eco-/Biosphere AmbientPro+	GrafClean
Concrete blocks	12-13 m ² /l (1 layer)	5-6 m ² /l (2 layers)	5-6 m ² /l (2 layers)
Render, plaster	13-14 m ² /l (1 layer)	6-7 m ² /l (2 layers)	6-7 m ² /l (2 layers)
Drywall, gypsum or fiber cement panels, repaint, mastic	14-15 m ² /l (1 layer)	7-8 m ² /l (2 layers)	7-8 m ² /l (2 layers)



A4. Graphenstone Stucco Finish

For high decoration stucco, or venetian stucco finishes:

- Apply one coat of **Ecosphere Premium** or **Biosphere Premium** diluted with 10% of its weight in water, and let dry for 24 hours. Recommended to homogenize substrate, minimize the material used and improve the workability and finish of the stucco.
- Apply 1 or 2 coats of **Stuki Premium** and create the required effect. Wait for 30-40 minutes between layers. Prior to smoothening, wait for 30-40 minutes if doing so manually, and a minimum of 90 minutes if smoothening with an electric buffer.
- Optional: apply one coat of **BeeWax Premium** after 24 hours. Recommended for exterior, for humid zones or finishes with intense colors.
- Optional. In areas of shower cabins where you want to protect the stucco with **Ferrara V** varnish, it is recommended to apply a coat of **AmbientPrimer Premium** beforehand to regularise absorption and avoid possible stains on the finish.



	Ecosphere	Stuki	BeeWax
Regular substrate	10-14 m ² /l (1 layer)	4-5 m ² /l (2 layers)	30-40 m ² /l



Maintenance guidelines

The supplier of Graphenstone products suggests the following generic maintenance procedures for the different Graphenstone paints and coatings:

General guidelines and preservation:

- No heavy elements (shelves, furniture, planters, awnings, etc.) shall be fastened to or hung on the cladding. Instead, fasten them to the construction element that acts as a support for the cladding.
- Fastening elements shall be made of stainless or galvanised steel to avoid stains due to oxidation.
- It is recommended to protect the surface from scratches or impacts that may affect the appearance and stability of the product.
- If buckling is observed in plastered or rendered walls or loose, broken or detached stones or slabs appear, the affected areas shall be removed. A professional technician should review and analyze the causes.
- Repairs or replacements shall be made as soon as the damaged is observed.
- In case of structural instability or danger of falling materials, the space that may be affected will be fenced off to avoid the transit of people.
- Repairs and/or replacements shall be made with materials similar to the original ones.

Rules of use and conservation of interior paints:

Repairs and/or replacements should be made with breathable paints, preferably lime-based, mineral-based or made with natural resins. Small differences in colour might be appreciated when repainting due to the mineral nature of the product.

Interior coatings, like all construction elements, have a limited life span. They are usually exposed to wear and tear due to abrasion, friction and impacts, requiring maintenance and/or replacements with certain frequency. For this reason, it is recommended to store a certain amount of the materials used to correct flaws and in anticipation of small reforms.

As a general rule, abrasive elements should not be used in contact with the painted surface. When defects other than the usual wear and tear marks are observed in the surface, a technician should be consulted. Water and humidity damage should be repaired immediately. Often, coating defects are the result of other defects in the supporting surfaces, walls or ceilings, which can have various origins. No action can be taken on the coating without first determining the cause of the problem in the surface.

- Impacts, scratches and rubbing shall be avoided.
- When cleaning the interior paints, use sponges or cloths and soapy water. Do not use chemical products, abrasives, alcohol, solvents or products containing them.

- The appearance of slaps, detachments and humidity will be watched.
- Every five years, interior paintwork should be checked.

Rules of use and conservation of exterior paints:

Repairs and/or replacements should be made with breathable paints, preferably lime-based, mineral-based or made with natural resins.

Exterior cladding and facade covering are usually one of the most fragile points of the building as they are exposed to the elements and weather. What initially may just look like dirt or an aesthetic deterioration of the facade can become a danger. Detachments or falling materials could fall directly on the street and pose a risk to pedestrians. For repainting, using the same type of paint is recommended. Care should be taken to ensure that there are no cracked or loose pieces, as they can easily come off.

- Impacts, scratches and rubbing shall be avoided.
- When cleaning the exterior paints, use sponges or cloths and soapy water. Do not use chemical products, abrasives, alcohol, solvents or products containing them.
- The appearance of slaps, detachments and humidity will be watched.
- Every five years, interior paintwork should be checked.
- Every ten years, a general inspection of the facade coverings and materials should be made.

Rules of use and conservation of mortars and renders:

Repairs and/or replacements shall be made with lime mortars. Do not use cement mortars.

- When cleaning mortar coatings, use a soft brush and water or a dry cloth, rubbing gently. Do not use chemical products, abrasives, alcohol, solvents or products containing them.
- Every five years, check the surface and repair damaged areas. Check corner beads and replace them if necessary.
- Every ten years, a general inspection of the mortars and renders should be made.