



GRAPHENSTONE®

APPLICATION HANDBOOK



Application handbook

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Prior Considerations

The procedures contained in this guide have been provided in good faith and are based on *Graphenstone®*'s current knowledge and experience on its products, provided that these have been adequately stored, used and applied; in normal situations and following *Graphenstone®*'s recommendations.

These procedures are only applicable to the application methods and products expressly referred to herein. The information provided does not exempt users from testing the products for suitability for the intended application ad purpose.

Required conditions for application:

- Surfaces must be dry, firm, well adhered and free from any foreign matter preventing a perfect adhesion of the product.
- If the support has impurities, it is recommended to perform a intensiv cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the surface.
- If the support presents pathologies such as structural cracks, rising damp, condensation or filtration, etc.; It is necessary to solve before the architectural problem that generates this phenomenon in order to obtain a good result.
- Work temperature (both ambient and surface) must be higher than +5 °C (41 °F) and lower than +32 °C (89.6 °F). Products may not be applied in direct sunlight or on sun-heated surfaces.
- In both, indoor and outdoor applications, areas with a likely proliferation of microorganisms such as algae, fungi and bacteria, it is recommended to apply a coat of AmbientPrimer Premium L44 before coating.
- Indicated drying times are based on specific meteorological conditions with temperatures between 20-30 °C (68-86 °F) and a relative humidity between 60-70%.
- Outdoor paint application during rainy season is not recommended, unless the facade is protected and the indicated drying times are increased.

Post-application conditions:

- Protecting the treated surface from the rain and/or high moisture for at least 4 days is recommended.
- The progressive physicochemical hardening process (carbonation process) takes place after 30 days. Please do not clean and/or scrub the treated areas during such period.

Consult the corresponding datasheets available on the web www.graphenstone.com

If you have any question concerning the application on surfaces other than those included in this Guide, please contact *Graphenstone®*'s Technical Department prior to using the products at technicalsupport@graphenstone.com.



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PAINTS





Biosphere Premium

Natural exterior paint, it contains graphene and is available in a white matte finish. It is ideal for construction, restoration and repainting. It reduces condensation and delays degradation of buildings, increasing the value of the property.

Ideal for decorating façades helping to create a healthy indoor environment. Also, suited for restoration of Listed Properties, all types of restoration work or contemporary buildings. It is recommended for exteriors of homes, museums, hospitals, crèches, shops, hotels, etc.



Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Yield: 6-9 m²/l (2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

- Absorbent substrates such as cement blocks, brick: apply **Filler Premium**.
- 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, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

Apply 2 or 3 coats evenly.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

2-4 hours between coats and 24 hours for drying (25 °C y 60% relative humidity).





Ecosphere Premium

Natural interior paint, it contains graphene and is available in a white matte or eggshell finish. It is ideal for construction, restoration and repainting. Creates healthier spaces inside your home, guaranteeing the breathability and health of the building.

Ideal for decorating interiors to achieve bio habitability and environmental sustainability criteria. Particularly suitable for the restoration of Listed Properties, contemporary and new build. It is recommended for interiors walls of homes, museums, hospitals, crèches, shops, hotels, etc.



Tools:

Roller, brush, airless or other type of projection.



Clean tools after use with warm water.

Airless application:

Spray angle: 30°
 Spray distance: 50-60 cm
 Tip size: 0.027 in.

Minimum strength of machine: 1750 W
 Machine filter: 30-40 mesh.

Yield: 6-9 m²/l (2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



= 6 - 9 m²

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. *If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.*

Preparation of the substrate:

- Absorbent substrates such as cement blocks, brick: apply **Filler Premium**.
- 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, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.

For other deteriorated surfaces and supports consult the Technical Department.



Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

Apply 2 or 3 coats evenly.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

2-4 hours between coats and 24 hours for drying (25 °C y 60% relative humidity).



GCS Exterior Premium

Exterior paint, it contains graphene and is available in a colour matte finish. It is a coating with selected pigments for tough and long-lasting colours which not lose intensity with the time.

Ideal for decorating façades and also helping to create a healthy indoor environment. Recommended for exteriors of homes, hotels, museums, shops, etc.



Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°
 Spray distance: 50-60 cm
 Tip size: 0.027 in.

Minimum strength of machine: 1750 W
 Machine filter: 30-40 mesh.

Colours:

Colour chart NCS 322.

Please note that due to the mineral nature of the product, the final colour tone may vary slightly. A colour exactly matching that chosen is not always obtained.

Yield: 6-9 m²/l (2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

- Absorbent substrates such as cement blocks, brick: apply **AmbientPrimer Premium**.
 - 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, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.
- For other deteriorated surfaces and supports consult the Technical Department.*

Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

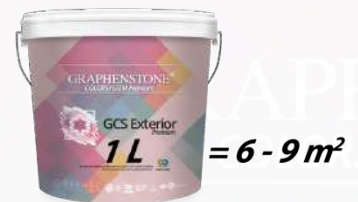
Apply 2 or 3 coats evenly. It is recommend to apply a coat of Primer GCS Exterior diluted with water at 15% of its weight previously to ensure an even intensive colour.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

2-4 hours between coats and 24 hours for drying (25 °C y 60% relative humidity).



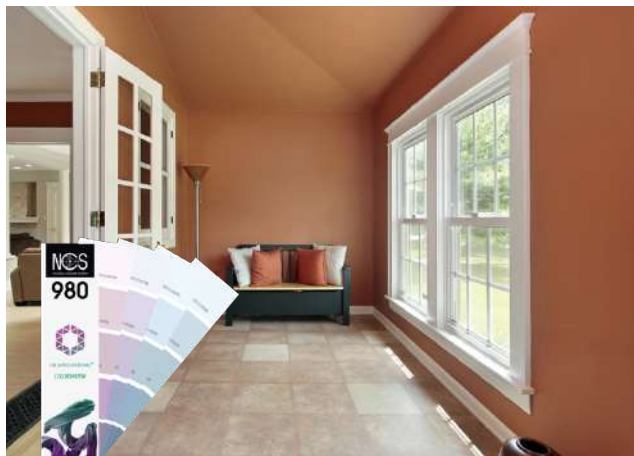
Use only the highest quality in Environment



GCS Interior Premium

Interior paint, it contains graphene and is available in a colour matte finish. It is a coating with selected pigments for tough and long-lasting colours which not lose intensity with the time.

Ideal for decorating interiors. guaranteeing the breathability and wholesomeness of the building. Recommended for interiors of homes, hotels, museums, shops, etc.



chosen is not always obtained.

Yield: 6-9 m²/l (2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

- Absorbent substrates such as cement blocks, brick: apply **AmbientPrimer Premium**.
 - 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, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.
- For other deteriorated surfaces and supports consult the Technical Department.*

Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

Apply 2 or 3 coats evenly. It is recommend to apply a coat of Primer GCS Exterior diluted with water at 15% of its weight previously to ensure an even intensive colour.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

2-4 hours between coats and 24 hours for drying (25 °C y 60% relative humidity)

Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Colours:

Colour chart NCS 980.

Please note that due to the mineral nature of the product, the final colour tone may vary slightly. A colour exactly matching that





GrafClean Premium

Ecological painting with graphene, for areas that are regularly cleaned. It allows to achieve high demand colours. Suitable for interiors and exteriors.

Ideal for decorating façades and interiors of buildings that require a hygienic finish and need to be kept clean. Also, to obtain high demand colours, guaranteeing their resistance over time. Recommended for crèches, schools, hospitals, shops, etc.



Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°
 Spray distance: 50-60 cm
 Tip size: 0.027 in.

Minimum strength of machine: 1750 W
 Machine filter: 30-40 mesh.

Colours:

White and colour chart NCS 980.

Yield: 5-7 m²/l (2 coats).



Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

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

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

Apply 2 or 3 coats evenly.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

2-4 hours between coats and 24 hours for drying (25 °C y 60% relative humidity).



PAINTS



AmbientPro+ Premium

Photocatalytic paint, it contains graphene. It decomposes organic substances and inorganic gases by means of light, whether natural or artificial, on titanium oxide nanoparticles, the photocatalytic component. Suitable for interiors and exteriors

Especially developed for façades of historic buildings in city centres and areas with high volumes of vehicles, such as tunnels and car parks. Also, suited to interiors of offices, restaurants, hotels, crèches, hospitals, veterinary clinics, etc.



Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°
 Spray distance: 50-60 cm
 Tip size: 0.027 in.

Minimum strength of machine: 1750 W
 Machine filter: 30-40 mesh.

Colours:

White. For coloured paint, please consult factory.

Please note that due to the mineral nature of the product, the final colour tone may vary slightly. A colour exactly matching that

chosen is not always obtained.

Yield: 6-9 m²/l (2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

- Substrate with no porosity such as glazed tiles, phenolic panels, epoxy or polyurethane paints, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.



Application method:

Apply previously one coat of AmbientPrimer Premium diluted 1:1 with water. After 24 hours, apply 2 or 3 coats evenly. *Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.*



Drying:

2-4 hours between coats and 24 hours for drying (25 °C y 60% relative humidity).



Proshield Premium

Conductive paint, with graphene, for shielding against electromagnetic waves. Designed for protection against radiation or interception of wireless network data. It also enables strengthening of signals of systems such as RFID, WiFi, etc. Suitable for interiors and exteriors.

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



job.

Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Yield: 6-7 m²/l (2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

- Absorbent substrates such as cement blocks, brick: apply **AmbientPrimer Premium**.
- 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, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Apply without dilution. If it requires, dilute with water at 5-10% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

Apply 2 coats evenly, make the surface even as possible. The electrical grounding system must entirely covered.

After drying, the product must be protected. It is recommended to place a gypsum board wall over the paint or painting directly with Graphenstone® paint.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

2-4 hours between coats and 24 hours for drying (25 °C y 60% relative humidity).



The background of the page is a classic marbled paper pattern, featuring irregular, vein-like shapes in shades of light green and white. A semi-transparent teal color is overlaid on the entire page, creating a uniform background for the text.

FINISHES



Kratzputz Premium

Natural coating with graphene, that has a texturised finish. It is characterized by its great resistance to temperature changes and to intense rain or snow. It is a hybrid product, between a lime mortar and a lime-based paint, with a granularity up to 2 mm.

Ideal for decorating façades in areas of extreme meteorological conditions, such as heavy rain or snow. Also, used for textured interiors. Recommended for homes, residential buildings, museums, shops, hotels, etc.



Tools:

Trowel, preferably metal.

Clean tools after use with warm water.



Colours:

White. For light colours, please consult factory.

Please note that due to the mineral nature of the product, the final colour tone may vary slightly. A colour exactly matching that chosen is not always obtained.

Yield: 4-5 kg/m² m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

- Absorbent substrates such as cement blocks, brick: apply **Filler Premium**.
- 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, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.

For other deteriorated surfaces and supports consult the Technical Department.

Application method:

Firstly, apply a coat of **Filler F20 Premium** diluted with water at 15% of its weight to ensure proper adherence to the substrate.

Mix well to ensure an even consistency and apply one coat with a trowel from top to bottom (like a mortar).

Once applied, smooth with the trowel using circular movements.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

24 hour (25 °C y 60% relative humidity).



Stuki Premium

Is a coating, containing graphene, for creating stuccos. It is very versatile enabling high quality results.

It is ideal for a high-quality finish for both interiors and exteriors to achieve bio habitability and environmental sustainability criteria. Particularly suitable for the restoration of Listed Properties, contemporary and new build. Recommended for homes, hotels, offices, museums, restaurants, shops, etc.



Tools:

Stucco trowel, Japanese trowel.
Clean tools after use with warm water.



Colours:

White and colour chart NCS 980.
Please note that due to the mineral nature of the product, the final colour tone may vary slightly. A colour exactly matching that chosen is not always obtained.

Yield: 4-5 m²/l (2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.
If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

Usually, it is recommended to previously apply a coat of Graphenstone® paint diluted with water to 15% by weight.

- Absorbent substrates such as cement blocks, brick: apply **Ambient Primer**.
- 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, wood or metal substrates (without corrosion or oxidation): apply **Four2Four Premium**.

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Mix well to ensure an even consistency.

Application method:

Apply 1 or 2 coats to give the desired effect. Polish by hand using a stucco trowel or with electric polisher. If the product becomes dry, water can be sprayed to recover workability.
Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

20-30 minutes between application of coats.. To polish, wait 30-40 minutes, if done by hand, and about 90 minutes, if using an electric polisher. Allow 24 hours for the total drying and final protection.



MORTARS



MortarBase Premium

Natural base mortar with graphene. It is used as a first regulation coat, as it contains coarse aggregates. High permeability to water vapor and good workability.

Ideal for renders, grouts in rehabilitation work and restoration of Listed Properties that require mortars identical to the original. Especially suitable as a technological solution for pathologies caused by capillary water absorption, condensation and leaks.



Tools:

Trowel, double-mix projecting machine, finishing trowel.

Clean tools after use with warm water.

Colours:

Natural (white)

Yield: 20 kg/m² (12 mm espesor).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

Conditions of the substrate:

The substrate must be dry, firm, well adhered, free of any impurity.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

If the substrate has little absorption, grip (smooth substrates, plasticization, ceramics, wood, etc.), apply **Contak Premium**, after 24 hours apply **Naturglue Premium** leaving it scratched or brushed and dry for 24 hours.

Do not drench the substrate before application, only lightly moisten if very dry.

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Pour off the water from the **Kalgraphin Premium** pack. Mix the contents of the sack (aggregates) with the remaining contents of the **Kalgraphin Premium** pack. If necessary re-add this water, never more than 1 l. Mix with an electrical beater or mechanically until it is completely even.

Application method:

Apply manually or by projecting, evenly. Set a ruler to the material applied to regulate the thickness and even out the material. At the start of drying, trowel.

If the substrate has cavities, natural stones, etc., the mortar must be launched prior on the substrate to ensure adhesion and avoid future superficial cracks.

If there are supports of different nature, meshes should be used. Working thickness: 5-15 mm.

Drying:



24-48 hours between coats; at least 4 days for the desired Graphenstone finishing.

Do not water, its forgens by absorbing ambient CO₂.





MortarFine Premium

Is a fine natural mortar with graphene. It is applied in one or two layers depending on the type of finish, such as smooth, trowelled and engraved textures, as well as pitted finishes, ashlar, sgraffito, etc. High permeability to water vapor and good workability.

Ideal for plastering in new buildings and for rehabilitation and restoration of Listed Properties that require mortars identical to the original.

Applied on substrates that have mechanical grip and are absorbent, such as rendering and bonding mortars.



Tools:

Trowel, finishing trowel. Double-mix projecting machine only for thicknesses of 8-10 mm.

Clean tools after use with warm water.



Colours:

Natural (off-white) and NCS 980 colour chart.

Please note that due to the mineral nature of the product, the final colour tone may vary slightly. A colour exactly matching that chosen is not always obtained.

Yield: 5 kg/m² (4-5 mm thickness).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



Conditions of the substrate:

The substrate must be dry, firm, well adhered, free of any impurity.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

If the substrate has little absorption, grip (smooth substrates, plasticization, ceramics, wood, etc.), apply **Contak Premium**. Do not drench the substrate before application, only lightly moisten if very dry.

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Pour off the water from the **Kalgraphin Premium** pack. Mix the contents of the sack (aggregates) with the remaining contents of the **Kalgraphin Premium** pack. If necessary re-add this water, never more than 1 l. Mix with an electrical beater or mechanically until it is completely even.

Application method:

Apply a first level coat and then apply a second one evenly until achieving the desired thickness, never more than 10 mm per day. At the beginning of drying, apply the finish according to the desired result: ironed, trowelled, engraved, pitted, ashlar, graffito, etc. In case of applying MortarSuper Premium afterwards, trowel the material.

If there are supports of different nature, meshes should be used. Working thickness: 2-10 mm.



Drying:



24-48 hours between coats and if it leaves has finishing; at least 4 days for the desired Graphenstone finishing. *Do not water, its forgens by absorbing ambient CO₂.*



MortarSuper Premium

Superfine natural mortar with graphene. It is applied as a final finishing coat for plastering and high-decoration finishes such as ironing, texturised, combed, etc. High permeability to water vapor and good workability.

Ideal for plastering and high-end decoration finishing in new buildings and for rehabilitation and restoration of Listed Properties that require mortars identical to the original.

Applied on substrates that have mechanical grip and are absorbent, such as rendering and bonding mortars.



Tools:

Trowel, finishing trowel.

Clean tools after use with warm water.



Colours:

Natural (off-white) and NCS 980 colour charts.

Please note that due to the mineral nature of the product, the final colour tone may vary slightly. A colour exactly matching that chosen is not always obtained.

Yield: 4 kg/m² (2-3 mm thickness).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



Conditions of the substrate:

The substrate must be dry, firm, well adhered, free of any impurity.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the substrate:

If the substrate has little absorption, grip (smooth substrates, plasticization, ceramics, wood, etc.), apply **Contak Premium**. Do not drench the substrate before application, only lightly moisten if very dry.

For other deteriorated surfaces and supports consult the Technical Department.

Product preparation:

Pour off the water from the **Kalgraphin Premium** pack. Mix the contents of the sack (aggregates) with the remaining contents of the **Kalgraphin Premium** pack. If necessary re-add this water, never more than 1 l. Mix with an electrical beater or mechanically until it is completely even.

Application method:

Apply a first level coat and then apply a second one evenly until achieving the desired thickness, never more than 10 mm per day. At the beginning of drying, apply the finish according to the desired result: ironed, trowelled, engraved, pitted, ashlar, graffito, etc. In case of applying MortarSuper Premium afterwards, trowel the material.

If there are supports of different nature, meshes should be used. Working thickness: 1-5 mm.

Drying:



24-48 hours between coats and before application of **Minerseal Premium** or **Hydroxeal Premium**; at least 4 days for the desired Graphenstone finishing.

Do not water, its forgens by absorbing ambient CO₂.





Naturglue Premium

Adhesive mortar with lime and graphene. Characterized by great flexibility, good adhesion and workability.

Ideal for bonding tiles, ceramics and as an anchor for insulation boards and non-flooding solutions. Also for the rehabilitation and restoration of Listed Properties that require mortars identical to the original.



Tools:

Trowel, toothed trowel, finishing trowel.

Clean tools after use with warm water.



Yield: 4 kg/m² (5 mm Thickness).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

Conditions of the substrate:

The substrate must be dry, firm, well adhered, free of any impurity.



If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the product:

Pour off the water from the **Kalgraphin Premium** pack. Mix the contents of the sack (aggregates) with the remaining contents of the **Kalgraphin Premium** pack. If necessary re-add this water, never more than 1 l. Mix with an electrical beater or mechanically until it is completely even.



Application method:

Apply manually in an even manner. Finish according to the required function: with toothed trowel to bond tiles, EIFS (Exterior insulation and finish system), etc. Or leave a trowel finish for applying Graphenstone® mortar or if a top coat.

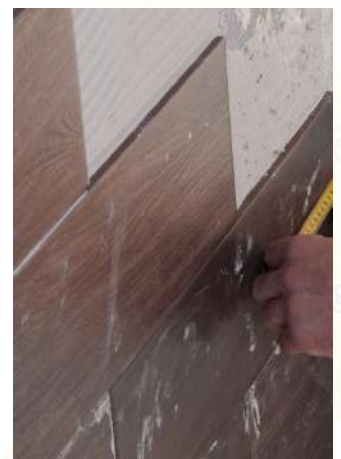
Do not drench the substrate before application, only lightly moisten if very dry. *For other deteriorated surfaces and supports consult the Technical Department. If there are supports of different nature, meshes should be used. Working thickness: 1-10 mm.*

Drying:



24-48 hours between coats, 7 days after tiles or EIFS adhesion; at least 4 days for the desired Graphenstone finishing.

Do not water, its forgens by absorbing ambient CO₂.





Thermsalb Premium

Natural mortar, with graphene, for thermal flooring.

Ideal for underfloor heating.



Tools:

Palette, vibrating machine (optional).
Clean tools after use with warm water.



Yield: 100 kg/m² (4 cm Thickness).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

Conditions of the substrate:

The substrate must be dry, firm, well adhered, free of any impurity.



If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Preparation of the product:

Mix well with electrical kneader or mechanically to ensure an even consistency.

Application method:

Apply the mix until reaching the point marked. Vibrate manually or with a vibrating machine to set the mix. Apply, even out until the point marked and vibrate again. Remove excess of material.

Do not drench the substrate before application, only lightly moisten if very dry. For other deteriorated surfaces and supports consult the Technical Department. Working thickness: 4-8 cm.

Drying:

7 days to pass before applying finishing mortar.
Do not water, its forgens by absorbing ambient CO₂.



A close-up photograph of a hand holding a paint roller. The roller has a dense covering of orange and yellow fibers. The hand is positioned in the lower-left corner, gripping the blue handle of the roller. The roller is being used to apply a white primer to a light blue wall. The wall shows some texture and a few small white spots where the primer has been applied. The word "PRIMERS" is written in bold, black, italicized capital letters in the center of the image.

PRIMERS



Filler Premium

Natural primer, with graphene, for white paint. It allows to regularize the absorption and texture of the substrate. There are two types regarding to granularity: F10 for a fine smooth finish and F20 for a thicker texture finish. Suitable for interiors and exteriors.

Ideal for priming façades and for interiors that has different absorptions, irregular textures, surface cracks (< 1 mm) and/or scaling/blistering of existing paint.



job.

Tools:

Roller, brush, airless or other type of projection (just for Filler F10).

Clean tools after use with warm water.



Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Yield: 5-7 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

Apply one coat evenly.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

4-6 hours (25 °C y 60% relative humidity).





Primer GCS Premium

Primer with graphene, for Graphenstone® ColorSystem. It allows to obtain an even colour. There are two versions according to its use: interior or exterior.

Ideal for priming façades and for interiors, thus obtaining an even colour. It is recommended to apply deep colours and/or to change an intense colour to light one.



must be determined by means of a sample of the job.

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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Product preparation:

Dilute with water at 10-15% of the product's weight (150-200 ml) and mix well to ensure an even consistency.

Application method:

Apply one coat evenly.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

4-6 hours (25 °C y 60% relative humidity).

Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.

Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.



Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Yield: 12-15 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption





AmbientPrimer Premium

Priming that allows to regulate and to reduce the absorption of the substrate. There are two types: without/with anti-algae effect, respectively L42/L44.

Ideal for priming facades and interiors on absorbent substrates such as plaster, concrete blocks, etc. Mandatory with AmbientPro + Premium, it guarantees the stability and durability of the system over time.



Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



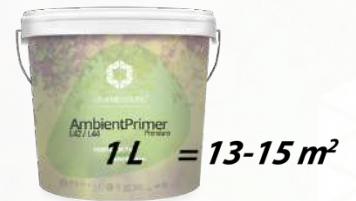
Airless application:

Spray angle: 30°
 Spray distance: 50-60 cm
 Tip size: 0.027 in.

Minimum strength of machine: 1750 W
 Machine filter: 30-40 mesh.

Yield: 13-15 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Product preparation:

Dilute with water 1:1, mix well to ensure an even consistency.

Application method:

Apply one coat evenly.



Drying:

24 hours (25 °C y 60% relative humidity).





Four2Four Premium

Adherence bridge for paint. It ensures that mineral paint adheres to all types of surfaces. Also, it acts as an antioxidant and sealer of wood and stains.

Ideal for ensuring the adhesion of the paint to substrate with no porosity such as glazed tiles, phenolic panels, polyurethane paints, etc. for interior and exterior.

Protects against rust on metallic surfaces preventing corrosion or oxidation.

Also, suitable for sealing wood substrate, MDF boards and stains for interiors.



job.

Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Yield: 10-11 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Application method:

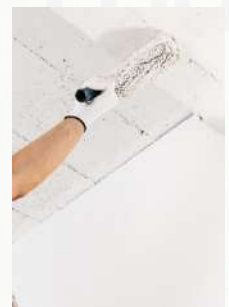
According to the final use:

- Bonding adherence and/or metal surfaces: apply 1 or 2 coats depending on absorption of the substrate. Softly sand to improve adhesion.

- Wood sealant: sand wood following the wood grain, thoroughly clean the surface, remove all resins or resin secretion on the surface and smooth up sharp edges. Apply 1 or 2 coats, depending on absorption the substrate. Softly sand between every two coats if a smooth finish is required.

- MDF board sealant: apply 2 coats, softly sanding between them.

- Stain sealant: apply a coat onto the affected area to fix the stain. For persistent stains, apply a second coat. Please, note that the product does not hide stains, the full opacity is achieved with the finishing paint. If the product is not overcoated by 7 days, it is recommending to softly sand to enhance the topcoat adhesion.



Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

30-60 minutes between coats and 6-8 hours for painting (25 °C y 60% relative humidity).



Contak Premium

Adherence bridge for rendering. It ensures adherence of mortar to all types of surfaces, both metallic and non-metallic. Suitable for interiors and exteriors.

Ideal for improving adherence and providing mechanical bonding to plastering mortar and adhesives on any type of support. Especially suitable to enable plastering of a smooth surface such as glass, ceramic, metals, wood, cement, etc.



Tools:

Roller or brush.

Clean tools after use with warm water.



Yield: 4-5 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Application method:

Mix well to ensure an even consistency and Apply one coat, adequately spreading the product.

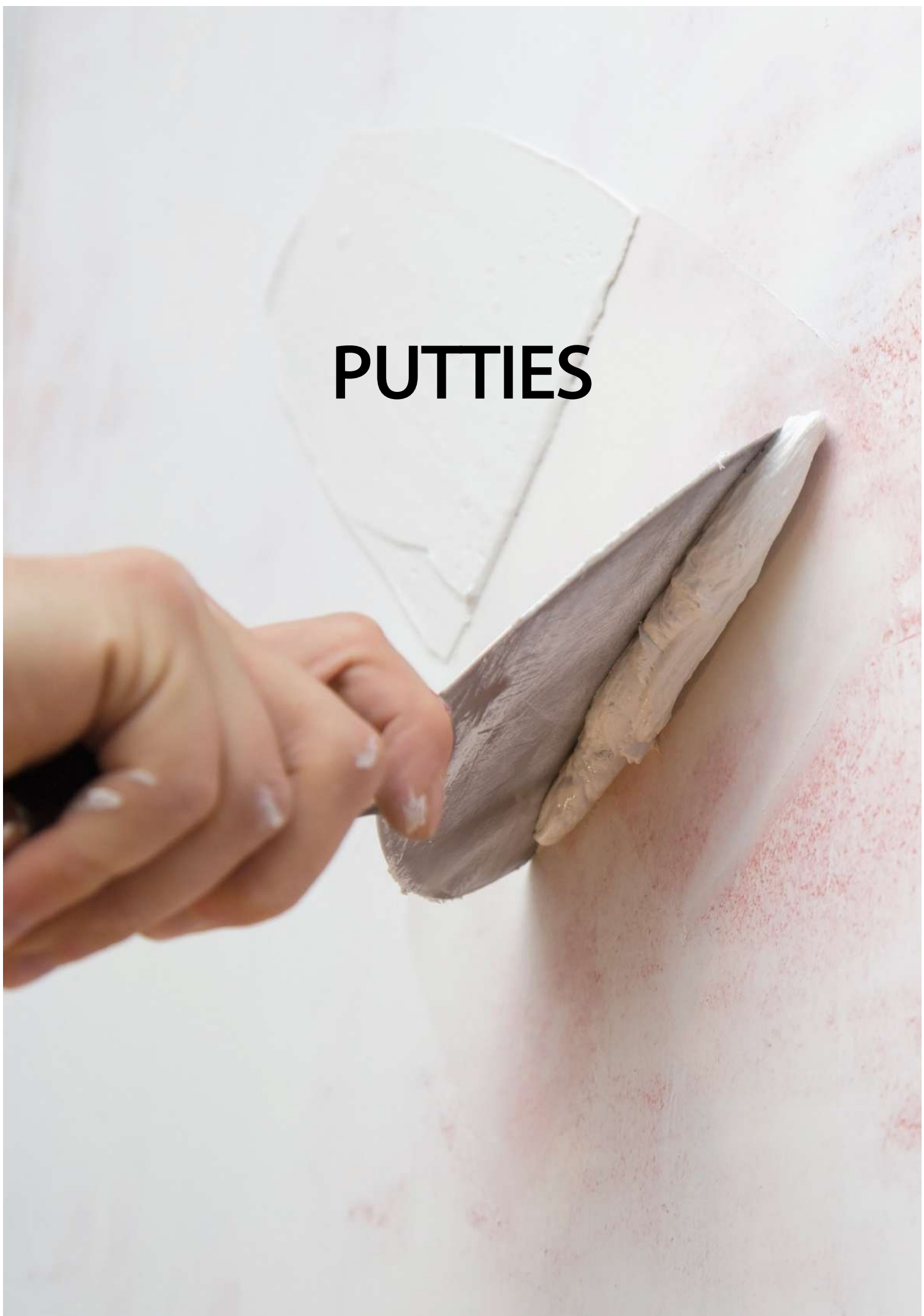


Drying:

24 hours for drying (25 °C y 60% relative humidity).



PUTTIES





Füllmasse Premium

Is a natural putty for sealant and repairing small surface defects.

Ideal for repairing and filling superficial defects such as small holes, crevices and surface fissures (1-3 mm). Also, for sealing joints between building boards.



Tools:

Spatula, trowel.

Clean tools after use with warm water.



Yield: 100-120 g/meter m²/l ().

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate. For other deteriorated surfaces and supports consult the Technical Department.

Application method:

Mix well to ensure an even consistency and fill in the surface defect and/or union between plates. Place a fibreglass mesh for joints and surface cracks greater than 1 mm. When dry sand. If necessary, regularise the support by applying a fine layer.



Drying:

24 hours (25 °C y 60% relative humidity).





Ecoputty Premium

Is a natural putty for smoothing rough surfaces or larger defect. There are two types re-garding to granularity: P62 for a fine smooth finish and 64 for a thicker texture finish.

It is designed for smoothing rough surfaces and re-pairing the scaling/blistering of the existing coating with a deterioration of less than 3 mm. Also, it is used to regularize and smooth the surface in building sys-tems such as prefabricated or wooden boards.



Tools:

Trowel.

Clean tools after use with warm water.



Yield: 1-2.5 m²/l (Thickness: 1 mm).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

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.



If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Application method:

Apply one coat evenly. After drying, sand and brush.

For large surface defects, first apply EcoPutty P62 and then EcoPutty P64.

The working thickness is < 1 mm for EcoPutty P62 and 1-3 mm for EcoPutty P64.



Drying:

24 hours (25 °C y 60% relative humidity).



SOLUTIONS



Neutralysal Premium

Colourless saltpetre resistant treatment. It acts as a salt sequestering agent and prevents the appearance of white stains brought caused by salinity.

Ideal for preventing and curing façades and exterior and interior walls that have been degraded by saltpetre.



job.

Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Yield: 7-8 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Application method:

Mix well to ensure an even consistency and apply one coat evenly.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

24 hours (25 °C y 60% relative humidity).





StopWater Premium

Anti-moisture treatment for walls that acts simultaneously as a consolidator. It is a weather resistant barrier that retains moisture and is broken down by the high pH value of the coatings.

It is used as a treatment, prior to painting, when renovating buildings with moisture accumulation inside the substrate, caused by capillarity, filtration or condensation.



job.

Tools:

Roller, brush, airless or other type of projection.

Clean tools after use with warm water.

Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.



Yield: 12-14 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Product preparation:

Mix the product and dilute 1:1 with water.

Application method:

Mix well to ensure an even consistency and apply one coat evenly.



Drying:

12-24 hours for drying (25 °C y 60% relativ humidity). Top-coat must be applied before 24 of application of the product.



Minerseal Premium

Consolidating treatment. It does not change the permeability of the substrate to gases and water vapour. Suitable for interiors and exteriors.

Ideal for consolidation of loose substrates (sandy, dusty, etc.) and finishes such as plaster, exposed concrete, prefabricated concrete elements, calcareous sandstone, etc. It is also used to reduce the absorption of substrates such as clay, adobe, rammed earth, etc.

Recommended for façades, sculptures, historic and landmark buildings, cultural heritage, decorations and ambience.



must be determined by means of a sample of the job.

Conditions of the substrate:

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

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Application method:

Depending on the purpose of the application:

- Consolidate and reduce the absorption of the substrate: brush and apply a coat of the product diluted 3:1 with water. (10m²/l)
- Consolidate mineral finishes: apply 1 or 2 coats, without diluting. (7 m²/l)

Do not saturate the substrate with the product.



Drying:

24 hours (25 °C y 60% relative humidity).

Tools:

Roller, brush, airless or other type of low pressure projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°
Spray distance: 50-60 cm
Tip size: 0.027 in.

Minimum strength of machine: 1750 W
Machine filter: 30-40 mesh.

Yield: 7-10 m²/l (1-2 coats).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption





Hydroxeal Premium

Water-repellent treatment for humid or atmospherically polluted areas. It prevents capillary absorption of water and contaminants without clogging the pores, thus not significantly altering the substrate's permeability to gases and water vapours.

General use for vertical or sloping mineral surfaces such as plasters, mineral paints, exposed concrete, calcareous sandstone, etc. Indoors, it is recommended for areas in contact with water vapor stories such as bathrooms, kitchens, covered swimmingpools, etc.



Tools:

Roller, brush, airless or other type of low pressure projection.

Clean tools after use with warm water.



Airless application:

Spray angle: 30°

Spray distance: 50-60 cm

Tip size: 0.027 in.

Minimum strength of machine: 1750 W

Machine filter: 30-40 mesh.

Yield:

To obtain water-repellent effect, use **200-300 ml/m²** on mineral paints and **400-500 ml/m²** on mineral mortars.



Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.

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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Product preparation:

Mix well to ensure an even consistency and dilute with water in a proportion of 1:3 for mineral paint and 1:1 for mineral mortar.

Application method:

Impregnate the substrate until its saturation. Generally, one or two coats are enough to achieve proper performance. The application of successive coats is performed in a semi-wet state.

Do not apply too thickly or micro-cracks can appear. Paint in sections starting with the borders. Avoid overlapping.



Drying:

24 hours (25 °C y 60% relative humidity).



Beewax Premium

Natural beeswax for the protection of lime-based stuccos. It prevents the absorption of water and contaminants, thus not significantly altering the substrate's permeability to gases and water vapours. Also, prevents the depigmentation of intense colours.

Ideal for the protection of lime-based stuccos. Particularly suitable for protection of intense colours and humid areas such as bathrooms, kitchens, etc.



Tools:

Sponge, trowel or glove with short hair.

Clean tools after use with warm water.



Yield: 30-40 m²/l (1 coat).

Coverage depends on the type, texture and absorption of the substrate. The exact consumption must be determined by means of a sample of the job.



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.

If the substrate contains impurities, it is recommended exhaustive cleaning, eliminating in its entirety and with specific products for this purpose any remaining algae, microorganisms and other impurities present in the substrate.

Application method:

Apply one coat evenly.

After 2 hours of application, polish with wool mop for shine intensification.



Drying:

24 hours (25 °C y 60% relative humidity).





Application Procedures Based on Surface

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Procedures Based on Surface

Paint coating and finish procedures for the aforementioned surfaces have been summarized below.

| Surface | Surface with coatings | Exposed surface | Finishes of surfaces |
|---|-----------------------|------------------|----------------------|
| MASONRY | | | |
| Bricks: | | | |
| ceramic | P2.1 | A2.2 | A3/A4/A5 |
| lime | P1.3 + P2.1 | A2.1/A2.2 | A3/A4/A5 |
| handmade rustic clay (<i>de tejar</i>) | P1.3 + P2.1 | A2.1/A2.2 | A3/A4/A5 |
| compressed earth (CEB) | P2.2 | A2.1/A2.2 | A1.3 + A3/A4/A5 |
| adobe | P2.2 | A2.1/A2.2 | A1.3 + A3/A4/A5 |
| Stone: | | | |
| limestone | P1.3 + P2.1 | A2.2 | A3/A4/A5 |
| granite | P1.2 + P2.2 | | A1.1 + A3/A4/A5 |
| Blocks: | | | |
| concrete | (P1.3) + P2.1 | | (A1.2) + A3/A4/A5 |
| cellular concrete | (P1.3) + P2.1 | | (A1.2) + A3/A4/A5 |
| cement-wood shavings conglomerate | (P1.3) + P2.1 | | (A1.2) + A3/A4/A5 |
| Concrete | P1.2 + P3.1/P3.2 | P1.2 + P3.1/P3.2 | A2.2 |
| COATINGS | | | |
| Cement, lime or cement-lime parge coat | P3.1 | A2.1/A2.2 | (A1.2) + A3/A4/A5 |
| Cement, lime or cement-lime render | P3.2 | A2.1/A2.2 | (A1.2) + A3/A4/A5 |
| Lime, gypsum or perlite plaster | | A2.1/A2.2 | (A1.2) + A3/A4/A5 |
| Synthetic or mineral mastic | | | (A1.2) + A3/A4/A5 |
| Paint: | | | |
| mineral (matte/semi-matte/satin) | P1.2 + P3.1/P3.2 | A2.2 | A3/A4/A5 |
| latex or acrylic (matte/semi-matte/satin) | P1.2 + P3.1/P3.2 | | A3/A4/A5 |
| latex or acrylic (gloss) | P1.2 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| polyurethane or epoxy | P1.2 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| enamel | P1.2 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| Ceramic tiles: | | | |
| glazed tiles | P1.2+P3.1 | | A1.1 + A3/A4/A5 |
| porcelain stoneware | P1.2+P3.1 | | A1.1 + A3/A4/A5 |
| quarry tiles | P1.2+P3.1 | | A1.1 + A3/A4/A5 |
| OTHER SURFACES | | | |
| Precast boards or panels: | | | |
| drywall | P1.2 + P3.1/P3.2 | | A3/A4/A5 |
| gypsum | | | A3/A4/A5 |
| fiber cement | P1.2 + P3.1/P3.2 | | A3/A4/A5 |
| gypsum fiber | P1.2 + P3.1/P3.2 | | A3/A4/A5 |
| phenolic | | | A1.1 + A3/A4/A5 |
| fiberglass-reinforced plastics | P1.2 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| Wood boards: | | | |
| OSB | P1.1 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| MDF | P1.1 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| plywood | P1.1 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| Metallic surfaces | P1.1 + P3.1/P3.2 | | A1.1 + A3/A4/A5 |
| CONSTRUCTION SYSTEMS | | | |
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| Tile adhesion | P4.2 | | |

If in doubt, please contact Graphenstone®'s Technical Department at: technicalsupport@graphenstone.com.



Application Procedures

Surface Coatings

P1. Surface Pretreatment for Coatings

Certain surfaces require a pretreatment before coating application.

P1.1. Wood or Metallic Surfaces

Wood surfaces must be sealed to prevent the appearance of tannins in the future as they cause 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. Graphenstone®'s solution to seal or protect wood and metallic surfaces, respectively, is:

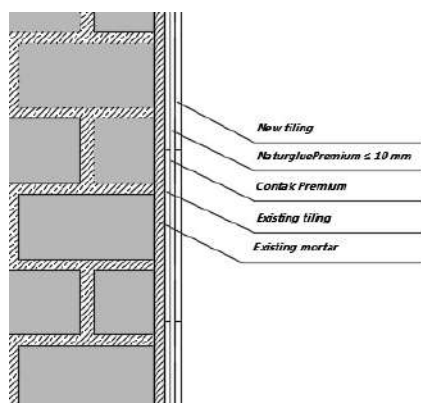


- To apply one coat of unthinned **Four2Four Premium** and to let it dry for 24 hours.
- Apply one coat of unthinned **Contak Premium** and let it dry for 24 hours.

P1.2. Non-porous Surfaces

Non-porous surfaces, such as *granite stone, concrete walls, drywall, fiberglass-reinforced plastic, paint, tiles or plasterboards, fiber gypsum, fiber cement*, require prior application of a mortar bonding layer. To do so:

- Apply one coat of unthinned **Contak Premium** and let it dry for 24 hours.



Picture 1. Example of application over tiles

Just in the case of supports with low porosity the previous performance can be replaced by the following:

- Apply one coat of **Naturglue Premium** with a 5-10 mm (0.19 in) notched trowel and let it dry for 24 hours.







P1.3. Surfaces with No Mechanical Anchor

For surfaces with few mechanical anchors, such as lime bricks, handmade rustic bricks (*ladrillos de tejar*) or limestone bricks:

- Apply a spatterdash of **NaturMortar Base** to reinforce the surface and provide a mechanical anchor to the base mortar. Let dry for 24 hours.



| | Four2Four | Contak | Naturglue | NaturMortar Base |
|------------------------|---|---|--|---|
| Regular surface | 10-11 m ² /l | 4-5 m ² /l | 5 kg/m ² thickness: 5 mm | 3-4 kg/m ² spatterdash |
| |  |  |  |  |

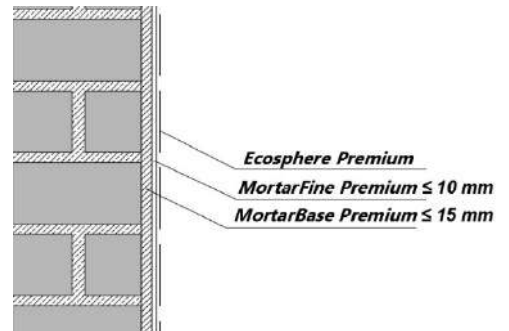
P2. Coatings for Jointed Surfaces

To ensure that joints in *brick, stone and block* surfaces are covered, apply a coating with a minimum thickness of 15 mm (0.59 in).

P2.1. Jointed Surfaces - General

Attend After applying the corresponding pretreatment as required by the surface, the general procedures for *ceramic bricks or cement bricks* are:

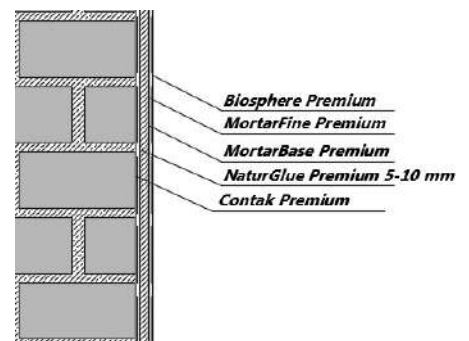
- Apply **MortarBase Premium**, either manually or sprayed, uniformly until reaching the desired thickness. Even the applied material out to achieve regular thickness and, once it starts to dry, complete application to achieve a porous open-textured surface. Thicknesses: 5-15 mm per day. Allow a 24 - 48 hour waiting time between consecutive layers and/or finishing mortar.
- Apply a first, even coat of **MortarFine Premium**, and then apply the second coat uniformly until reaching the desired thickness. When it starts to dry, finish it as required to achieve the final finish. Thickness: 2-10 mm per day. Let it stay for at least 4 days to ensure carbonation of the lime mortar.
- Complete the application as required based on the desired **Graphenstone® finish**.



P2.2. Very Absorbing Surfaces

On very absorbing surfaces, such as *adobe bricks, CEB (compressed earth block), block walls*, or on surfaces where **Contak Premium** has been previously applied, such as *granite stone*:

- Apply a later of **Naturglue Premium** using a notched trowel of a 5 mm (0.19 – 0.39 in) thickness and let dry for 24 hours.
- Apply **MortarBase Premium**, either manually or sprayed, uniformly until reaching the desired thickness. Even the applied material out to achieve regular thickness and, once it starts to dry, complete application to achieve a porous open-textured surface. Thicknesses: 5-15 mm per day. Allow a 24 - 48 hour waiting time between consecutive layers and/or finishing mortar.
- Apply a first, even coat of **MortarFine Premium**, and then apply the second coat uniformly until reaching the desired thickness, which shall never be more than 10 mm (0.39 in) per day. When it starts to dry, finish it as required to achieve the final finish. Let it stay for at least 4 days to ensure carbonation of the lime mortar.
- Complete the application as required based on the desired **Graphenstone® finish**.





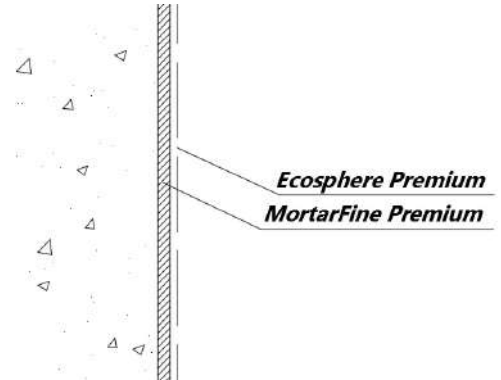
| | Naturglue | MortarBase | MortarFine |
|------------------------|---|---|---|
| Regular surface | 5 kg/m ² thickness: 5 mm | 20 kg/m ² thickness: 12 mm | 4 kg/m ² thickness: 3-4 mm |
| |  |  |  |

P3. Coatings for Surfaces with No Perpend Joints

P3.1. Fine Surface Coating

After applying the corresponding pretreatment as required by the surface, to achieve a fine finish:

- Apply a first, even coat of **MortarFine Premium**, and then apply the second coat uniformly until reaching the desired thickness, which shall never be more than 10 mm (0.39 in) per day. When it starts to dry, finish it as required to achieve the final finish. Let it stay for at least 4 days to ensure carbonation of the lime mortar.
- Complete the application as required based on the desired **Graphenstone® finish**.



P3.2. Super Fine Surface Coating

After applying the corresponding pretreatment as required by the surface, to achieve a super fine finish:

- Apply a first, even coat of **MortarSuper Premium**, and then apply the second coat uniformly until reaching the desired thickness, which shall never be more than 10 mm (0.39 in) per day. When it starts to dry, finish it as required to achieve the final finish. Let it stay for at least 4 days to ensure carbonation of the lime mortar.
- Complete the application as required based on the desired **Graphenstone® finish**.

| | MortarFine | MortarSuper |
|------------------------|---|--|
| Regular surface | 4 kg/m ² thickness: 3-4 mm | 4 kg/m ² thickness: 2-3 mm |
| |  |  |

P4. Adhesion Systems

P4.1. EIFS installation

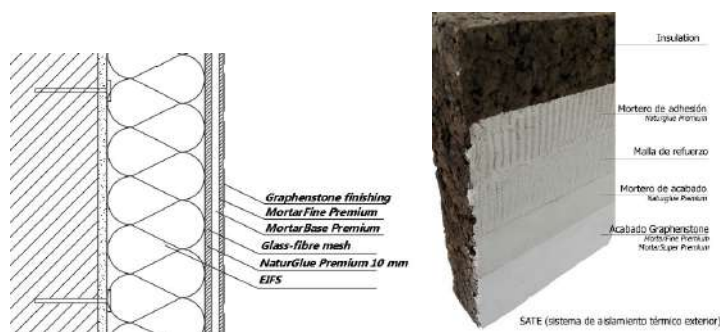
After applying the corresponding pretreatment as required by the surface, to install an Exterior Insulation and Finish System (EIFS):

- Apply a layer of **Naturglue Premium** using a 10 mm (0.39in) notched trowel, place the insulation board followed by the mechanical anchor. Let dry for 24 hours.
- Apply a layer of **Naturglue Premium** using a 5 mm (0.19-0.39in) notched trowel, insert fiber glass mesh with a 5 mm (0.19 in) mesh size and, once it starts to dry, complete troweling or brooming. Let dry for 24 hours.
- Apply **MortarBase Premium**, either manually or sprayed, uniformly until reaching the desired thickness. Even the applied material out to achieve regular thickness and, once it starts to dry, complete application to achieve a porous open-textured surface. Thicknesses: 5-15 mm per day. Allow a 24 - 48 hour waiting time between consecutive layers and/or finishing mortar.
- Apply a first, even coat of **MortarFine Premium**, and then apply the second coat uniformly until reaching the



desired thickness, which shall never be more than 10 mm (0.39 in) per day. When it starts to dry, finish it as required to achieve the final finish. Let it stay for at least 4 days to ensure carbonation of the lime mortar.

- Complete the application as required based on the desired **Graphenstone® finish**.



P4.2. Tile Adhesion

To adhere ceramic tiles on walls or floors:

- Apply a layer of **Naturglue Premium** using a 3-5 mm (0.11-0.19in) notched trowel on vertical surfaces and a 10 mm (0.39in) notched trowel on horizontal ones. Place the ceramic tile and let dry for 48 hours.
- Apply grout to cover perpend joints and let dry for 24 hours.

When placing tiles on vertical surfaces, do not remove the setting tool for 48 hours after application. As for floors, refrain from stepping on them for 5-7 days.

| | Naturglue | MortarFine |
|------------------------|---|--|
| Regular surface | 5 kg/m ² thickness: 5 mm | 4 kg/m ² thickness: 3-4 mm |
| |  |  |

Graphenstone® Finishes

A1. Surface Pretreatment for Finishes

Certain surfaces require a pretreatment prior to finish application.

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

Wood surfaces must be sealed to prevent the appearance of tannins in the future as they cause 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:

- To apply an unthinned layer of **Four2Four Premium** and to let dry for 24 hours.



Occasionally, a chemical product may be added to *concrete walls* for formwork stripping, which leaves remains on wall tht decrease the adherence of mineral paint. This pretreatment must be applied if there is no information is 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** thinned 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 pure **Minerseal Premium** and let dry for 24 hours.

| | Four2Four | Contak | Minerseal | AmbientPrimer |
|------------------------|--|--|---|--|
| Regular surface | 10-11 m ² /l | 4-5 m ² /l | 10-11 m ² /l | 13-15 m ² /l |
| |  |  |  |  |

A2. Exposed Surface Finish

A2.1. Consolidant Protection

Certain surfaces, such as *bricks and mortars*, are usually left exposed. For such purpose, applying a consolidant protection to protect the surface from wear and tear is recommended.

- Apply 1 or 2 unthinned coats of **Minerseal Premium**. Allow 24-hour drying between coats and cover the treated surface in 4 days. The number of layers required depends on the absorption level of the substrate and on the application tool (roller, brush or spray).



A2.2. Water-resistant Protection

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

- Apply **Hydroxeal Premium** thinned with water with a 1:1 ratio until the surface is completely saturated. In general, 1 or 2 coats will suffice. Consecutive layers must be applied on a semi-humid status. To achieve water-resistance, please apply the indicated quantities.

| | Minerseal | Hydroxeal (1:1) |
|---|------------------------------|---------------------------|
| Decorative ceramic, lime, rustic, CEB or adobe brick | 8 m ² /l (1 coat) | 300-400 ml/m ² |
| Parge coat, render, plaster | 7 m ² /l (1 coat) | 400-500 ml/m ² |
| Concrete walls, limestone | - | 300-400 ml/m ² |



A3. Finishes with Graphenstone® Paint

After applying the corresponding pretreatment as 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 **Eco-/Biosphere Premium** thinned with 15% of its weight in water for the first coat and with 10% for all successive coats, allowing 4 hours between layers. In absorbing surfaces, apply the first coat thinned with 20% its weight in water.



A3.2. Graphenstone® Color Paint

For finishes with **GCS Interior Premium** indoors, **GCS Exterior Premium** outdoors or **GrafClean Premium** in areas requiring very frequent cleaning:

- Optional: apply one coat of **Primer GCS Premium** thinned with 15% of its weight in water, and let dry for 4-6 hours. Mainly recommended when painting with vivid GCS Premium colours and repainting over vivid colours. Do not apply after AmbientPrimer Premium, neither for the application of Grafclean Premium.
- Apply 2 or 3 coats of **GCS Premium** or **GrafClean Premium** thinned 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** thinned with water with a 1:1 ration. Let dry for 24 hours.
- Apply 2 or 3 coats of **AmbientPro+ Premium** thinned with 10-15% its weight with water, allowing four hours between layers.

| | AmbientPrimer (1:1) | Eco-/Biosphere AmbientPro+ GCS | GrafClean |
|--|-------------------------------------|---|------------------------------------|
| Concrete blocks | 12-13 m ² /l (1 coat) | 5-6 m ² /l (2 coats) | 4 m ² /l (2 coats) |
| Render, plaster | 13-14 m ² /l (1 coat) | 6-7 m ² /l (2 coats) | 4-5 m ² /l (2 coats) |
| Drywall, gypsum or fiber cement panels, repaint, mastic | 14-15 m ² /l (1 coat) | 8-9 m ² /l (2 coats) | 4-5 m ² /l (2 coats) |



A4. Graphenstone® Stucco Finish

For haute decoration stucco, or venetian stucco finishes.




- Apply one coat of **Ecosphere Premium**, **Biosphere Premium** or **GCS Premium** thinned with 15% of its



weight in water, and let dry for 24 hours. Recommended to homogenize substrate, minimize the material used and achieve a uniform color.

- Apply 1 or 2 coats of unthinned **Stuki Premium** and create the required effect. Wait for 30-40 minutes between layers. Prior to smoothing, wait for 30-40 minutes if doing so manually, and a minimum of 90 minutes if smoothing with an electric buffer.
- Optional: apply one coat of **BeeWax Premium** after 24 hours. Recommended for very humid zones or finishes with intense colors.

| | Ecosphere | Stuki | BeeWax |
|------------------------|-----------------------------------|---------------------------------|-------------------------|
| Regular surface | Based on surface (see Section A3) | 4-5 m ² /l (2 coats) | 30-40 m ² /l |



A5. Finishes with Extreme Weather-Resistant Coatings

For areas with extreme weather conditions such as severe temperature changes or heavy rain/snow. Also as a decorative texture indoors.

- Apply one coat of **Filler F20 Premium** thinned with 15% of its weight in water, and let dry for 24 hours. This product will ensure subsequent mechanical anchorage. If the anchor has already sufficient grip force, this surface preparation step may be omitted.
- Apply one unthinned coat of **Kratzputz Premium** with a plastering trowel (preferably metallic). Once applied, pass the trowel with circular motions.

| | Filler F20 | Kratzputz |
|--|-----------------------|-----------------------|
| Ceramic brick, parge coat, render, plaster, drywall panels, repaint | 5-6 m ² /l | 4-5 kg/m ² |
| Concrete blocks or cellular concrete | 4-5 m ² /l | 4-5 kg/m ² |

