



## **Standard Exterior Heritage specification Bare/New Renders, including lime, brick and stone.**

The Graphenstone solutions included in this proposal are supported by a wide international experience, even though the final decision of the acceptance of the proposal is the responsibility of the customer.

Graphenstone is a manufacturer of building materials based on lime with graphene technology. IEdiSA, manufacturer of Graphenstone products, has implemented an Integral Management System according to UNE-EN ISO 9001: 2000, ISO UNE-EN 14001 and has been registered by AENOR and IQNet with the Company Registration number ES-0610/2013, ES-2013/0248 and GE-2014/0040 respectively. It is the first international company obtaining the GOLD classification in the Cradle-to-Cradle Program Certified™ and holds over 13 International Certifications.

In line with the philosophy of Graphenstone, our products contribute actively and positively to the fulfilment of different criteria of the most recognised sustainable building certifications worldwide such as WELL, LEED Certified® and BREEAM®.

### **Report sections:**

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  - Paint systems
2. Product information
  - Yield.
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  - Key Characteristics.

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Graphenstone UK has put together an example specification to determine the best set of solutions to implement the works required.

This technical report identifies the recommended actuation for the decoration of the External walls and provides the related documentation of the reference products.

## 1. PROPOSAL OF WORKS

### a) PRE-TREATMENT

All loose, flaking, and unstable material must be identified and then thoroughly removed, to get back to a sound edge; if required, these edges should then be feathered in to provide a good, even surface. Ensure that any paint materials left remaining, and the underlying substrate, is sound and adhering well. Any gloss or shiny surfaces should be thoroughly flatted down using sandpaper to create a good key.

All mould and fungal growth must be thoroughly removed then treated with a suitable fungicidal wash.

### PLEASE NOTE:

Particular care and preparation need to be taken, when applying **OVER** existing painted film forming surfaces. It is essential that the adherence of the previously decorated surface is completely sound and in full contact with the underlying substrate, as the Graphenstone paints will only perform as well as the surface to which they are applied.

### Additional pre-treatments:

Some areas may need additional pre-treatment works if a problem is indicated e.g.: salt deposits, damp ingress or excess moisture.

### b) FILLERS & PRIMERS

#### FILLERS:

##### **Minermastic:**

In the case of any cracks or small holes, or superficial defects of 1-3mm, the surface should be filled using Minermastic, a powdered lime and graphene filler. Apply with a trowel or filling knife in 1 or 2 layers where needed. Sand back when dry for a smooth surface.

##### **EcoPutty:**

Ecoputty Premium is a natural putty for smoothing rough surfaces or larger superficial defects, repairing the scaling/blistering of the existing paint with deterioration of less than 3 mm, etc. Also, it is used to regularize the surface. Apply one coat of the product extending properly. The working thickness: 1-3 mm for EcoPutty. Drying: 24 hours at 25 °C and 60% relative humidity: 24-48 hours for sanding and 48-72 hours for painting

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## **PRIMERS:**

### **Bare/New External Wall space.**

#### **Nevada Ultra Matt:**

Fully natural and sustainable, eco-friendly, mineral matt with Graphene technology, Nevada is perfect for mist coating internal walls and ceilings, obliterating strong colours. SD rating <0.14

Apply a single even application of **Nevada Ultra Matt** over all areas that are to be painted. **Dilute 20%** with clean cold-water and apply by brush, roller, or airless spray, at a spread rate of **10-14m<sup>2</sup>** per litre and allowed to **dry for 24hours**.

Following the guidelines given, mix with a mechanical mixer to ensure a smooth and homogenous mixture. Avoid excessive shaking of the paint and allow to settle to minimize air bubbles.

**OR**

#### **Ambient Primer L42:**

A clear, stabilising & consolidating primer, L42 can be used where the surface is highly absorbent (old limewash, Distempers), on difficult surfaces such as cast concrete, OR as a general primer coat under Graphenstone paints.

**Dilute 1:1 with clean cold water** and apply by brush, roller, or low-pressure spray, at a spread rate of approximately **25-35m<sup>2</sup>** worked well into the surface and allowed to **dry for 24 hours**.

## **c) PAINT SYSTEMS**

After filling and priming of the substrate where needed, it is recommended to apply two full coats of a Graphenstone paint system. Any new/repared areas (particular note needs to be taken on new lime surfaces) must be allowed to dry out for a minimum period of 28 days prior to the application of Graphenstone paints. When all surfaces are clean, sound, wind dry, dust free and free from all surface contaminants, decoration may proceed.

### **Finish Coats:**

#### **External Walls.**

##### **GCS Exterior Matt:**

Our washable, heritage matt emulsion, for Exterior use. GCS Exterior premium is an ecological, breathable, lime silicate paint with 60% solid content, it has excellent opacity and coverage, as well as class 1 durability and an SD rating of <0.08.

Apply two even applications of **GCS Exterior Matt** over all areas that are to be painted. **Dilute 10-15%** with clean cold water and apply by brush, roller, or airless spray, at a spread rate of **10-14m<sup>2</sup>** per litre with **2-4 hours between coats and 24-hour drying time per coat**. Full cure achieved in approximately 30 days

Following the guidelines given, mix with a mechanical mixer to ensure a smooth and homogenous mixture. Avoid excessive shaking of the paint and allow to settle to minimize air bubbles.

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## GENERAL NOTES FOR DECORATION

Important points to be borne in mind when using Graphenstone paints, and for them to achieve the best bond with the surface to which they are applied, it is essential that the following recommendations are followed:

1. All areas to be decorated should be free from all surface contaminants, sound and in complete bond with the substrate, dry and dust free.
2. All materials must be thoroughly mixed beforehand using a mechanical mixer, to ensure an equal distribution of pigments and to create an even and homogenous texture.
3. Materials must not be applied at temperatures below 7°C or those more than 30°C.
4. Materials must not be applied if it is raining or if there is an immediate likelihood of rain. Surfaces should be protected from rain for a period of at least 4-5 days after application.
5. In case of rain, let the substrate dry for at least 48 hours before applying paints.
6. The total curing occurs during the first 30 days. It is recommended to avoid cleaning and/or rubbing during that time.
7. On newly applied mineral surfaces, we would suggest that a period of at least 28 days is allowed following application, prior to the application Graphenstone paints.
8. Use only Graphenstone range of pre-treatments and fillers prior to application of Graphenstone paint systems.
9. Any splashes or spillage should be removed immediately using water - note needs to be taken of this in respect of Graphenstone on glass and wood, as it has a slight etching effect if allowed to dry hard.
10. Clean all brushes and tools immediately in water.
11. Always store in frost-free conditions.
12. Always maintain a 'wet edge' and work materials out well

## CONSIDERATIONS:

The indicated drying times are according to weather conditions with a temperature between 20-30°C and a relative humidity between 60-65%

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## 2. PRODUCT INFORMATION

### Yield

Yield varies depending on the surface, application conditions and/or workers, so the exact consumption must be determined by carrying out a sample on the work. As an estimate, we consider the following yield according to support information:

PRODUCT	LAYERS	YIELD
Minermastic Premium	1	0.6-0.7 kg/m <sup>2</sup>
Ecoputty	1	0.5-1.5 kg/m <sup>2</sup> (@1 mm)
Ambient Primer L42	1	25-35m <sup>2</sup> /l
Nevada Ultra Matt	1	10-14m <sup>2</sup> /l
GCS Exterior	2	10-14m <sup>2</sup> /l

### TDS

Minermastic: [TDS\\_MinerMastic-Premium\\_21\\_EN.pdf - Google Drive](#)

Ecoputty: [TDS\\_Ecoputty-Premium\\_21\\_EN.pdf - Google Drive](#)

Ambient Primer L42: [TDS\\_AmbientPrimer-Premium\\_21\\_EN.pdf - Google Drive](#)

Nevada Ultra Matt: [TDS\\_Nevada-Ultra\\_21\\_EN.pdf - Google Drive](#)

GCS Exterior: [TDS\\_GCSExt\\_21\\_EN.pdf - Google Drive](#)

<https://drive.google.com/file/d/1Fx7vg6ZCU7YSqSNDvLhGK-KGvO8weS9q/view>

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## KEY CHARACTERISTICS

### **Minermastic Premium:**

Mineral renovation putty to repair surface defects. Application to fill small defects such as cracks, small holes, and superficial fissures (1-3 mm) and to smooth rough surfaces, large surface defects, repair chipping of existing paint. For application in interiors and exteriors under roof.

### **Ecoputty Premium:**

Ecoputty Premium is a natural mineral putty for smoothing rough surfaces or larger superficial defects, repairing the scaling/blistering of the existing paint with deterioration of less than 3 mm, etc.

### **L42 Ambient Primer:**

Clear, general primer for all internal and external mineral surfaces that are to be painted, such as plaster, render, brick/block work, cement etc.... Can also be used as a stabilizing primer for inconsistent, heavily repaired, part and previously painted surfaces, and over suitably prepped, chalky/dusty surfaces such as old limewash and distemper.

### **Nevada Ultra:**

Fully natural and sustainable, eco-friendly, mineral matt with Graphene technology, free of VOCs, APEOs and MITs (white only) and other toxicities. Nevada is perfect for mist coating internal and external walls and ceilings, obliterating strong colours or as a finish internally for more cost sensitive projects, Nevada provides a wipeable, dead flat finish that is fully breathable ((SD 0.14).

### **GCS Exterior:**

Exterior lime/silicate emulsion with graphene technology, in a dead matte finish (2% sheen), GCS is a perfect heritage paint that guarantees the breathability of the building (SD 0.08), whilst also offering a washable finish. Free of VOCs, APEOs and other toxicities, and Cradle to Cradle silver certified, it is also among the healthiest, most sustainable paints available. BREEM, WELL, SKA and LEED compliant.

Report prepared for John Thorogood by Graphenstone UK.

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