# Heritage Statement

Internal and External alternations to 12 Top of the Hill, Slaithwaite, HD7 5UA

September 2024

**Contents**



**Appendices**

## 1. Context

1.1 This statement has been prepared to accompany listed building application for internal and external alterations at 12 Top of the Hill, off Lingards Road, Slaithwaite, HD7 5UA.

1.2 The application site lies within the Green Belt defined in the Kirklees LDF, extracts of which are appended to this statement, but is outside of any conservation area.

1.3 The dwelling is a Grade 2 Listed Building and was designated as such in July 1985.

1.4 The applicants and current owners moved into the property in December 2020 and have identified desired alternations as listed in section 2 of this statement.

1.5 Prior to this application, approval was given for a series of internal and external alternations. This scope of this work encompassed:

- Acoustic improvements to some first floor partitions (completed)
- Under drawing of lounge ceiling joists (to be completed)
- Installation of cowell to existing chimney (completed)
- Repointing of external walls (in progress)

under application number 2020/93574

1.6 The previous owners made an application to carry out repairs to a roof beam which was covered under application number 2020/92907.

## 2. Scope of Work

2.1 The scope of work is as follows:

i. Plastering of one internal wall with insulating lime render to improve thermal properties
ii. Installation of chimney cap to disused chimney to prevent water ingress

2.2 The above items are described below in more detail along with the impact on the listed building.

### i. Plastering of one internal wall with insulating lime render to improve thermal properties

The internal west facing gable end wall of the property is currently exposed stone (as per Photo 1). The wall is highly exposed to driving rain and given the porous nature of the stone is exposed to damp and cold especially in winter months.

During a site visit for a previous listed application, the heritage officer noted that originally the walls in a property of this nature would have been covered with a lime plaster, and that the exposure of the stone was a later modification. He therefore suggested that an insulating lime plaster could improve the thermal properties of the wall as well as enhancing the heritage value of the property.

We propose to cover the exposed wall either side of the chimney breast with a historically sympathetic breathable insulating lime plaster. We propose to use Diathonite, an insulating lime plaster which includes additional natural materials (Hydrated lime, NHL 3.5 binder, Clay, Cork and Diatomaceous earth) to improve its thermal properties whilst retaining breathability. Diathonite is designed to be suitable for use in listed and historic buildings. The buildup will consist of a 20mm Diathonite backing coat to provide a breathable level surface, plus two coats in lime plaster. The lime plaster coats will consist of a base (scratch) coat of around 8-10mm and a finish coat of around 2-5mm. The insulating lime plaster will be finished with a neutral lime wash. A diagram of the proposed buildup is included in Photo 2. Specifications for Diathonite is included in Appendix C. An example of the proposed finish (a lime washed wall in a historic building) is shown in Photo 3.

### ii. Installation of chimney cap to disused chimney to prevent water ingress

The central chimney of the property (shown in Photo 4) is connected to a log burning stove which is currently disused due to child safety and environmental concerns. During the winter months, there is currently water ingress into the lounge via the chimney, as well as significant drafts, reducing the thermal efficiency of the property. We propose to cap the chimney to prevent damage to the property and reduce heat loss. We have consulted with a roofing company specialising in listed properties, who have advised that the current H-pot style pot (visible in Photo 4) cannot be capped: they would replace this with a traditional clay roll top style pot (Photo 5) and then fit a suitable, sympathetic terracotta cowl (Photo 6). This would match the other chimney of the property which is also currently disused and capped (Photo 7).

## 3. Heritage Impact Statement

3.1 The dwelling is Grade II Listed and the description of the property on the Heritage England log is as follows:

*"SE 0713 LINGARDS ROAD Slaithwaite 13/246 Nos 11 and 12 - Hill Top*

*GV II No 11: 1733 (datestone) with mid C19 alterations and additions No 12 is Mid C19 2 houses in one range. Hammer dressed stone. Some quoins. Pitched stone slate roof. Coped gable to No 11. 2 storeys. No 11 SE elevation 2 original window openings remain: to right of near-central doorway, to ground floor. One 4-light and one 2-light stone mullioned window, double chamfered (only central mullion of 4-light window remaining). Doorway, (Mid C19), has Tudor arch cut in deep lin- tel with head mould over. To left is former 3-light window, double chamfered (mid C19) with mullions removed. Three similar, mid C19, windows at first floor level. NW Elevation obscured by later infil between house and adjacent barn. Former NE gable (now internal): date on door lintel reads MW MW No 12: included 17 33 for group value. Predominantly 3 and 4-light stone mullioned windows with most mullions removed and modern casements.*

*Listing NGR: SE0751313556"*

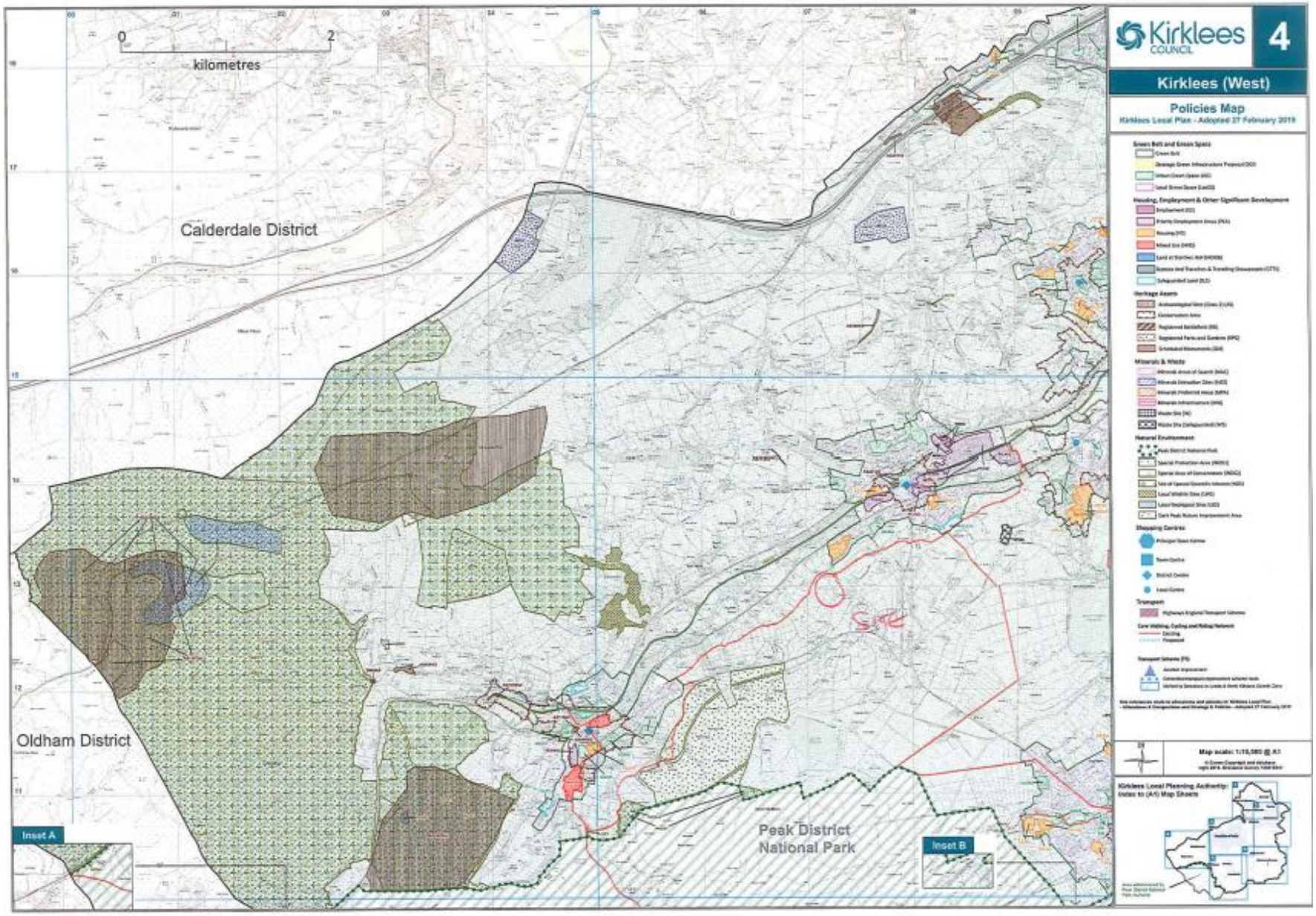
3.2 The impact of the proposed works is assessed as follows:

**Plastering of one internal wall with insulating lime render**

The insulating lime render will improve the thermal properties of the property and prevent damage due to damp build up in this room. It will be more historically in keeping with the original design and finish of the property, as advised by the Kirklees heritage officer. The changes can be removed in future if needed with minimal damage to the existing masonry. The historically in keeping nature of the change, combined with the maintenance value in preventing damp, means that the proposed change will have a positive impact on the listed building.

**Installation of chimney cap to disused chimney to prevent water ingress**

The proposed pot (clay terracotta roll top) is historically sympathetic and matches the other existing chimney pot of the property. The cowl is also made of clay and can be removed at a later date should the chimney come into use again. The change will prevent water ingress to the building and prevent damage. The proposed change can be reversed if necessary in the future and will have no impact on the listed building.


0
2
kilometres
Calderdale District
Oldham District
Peak District
National Park
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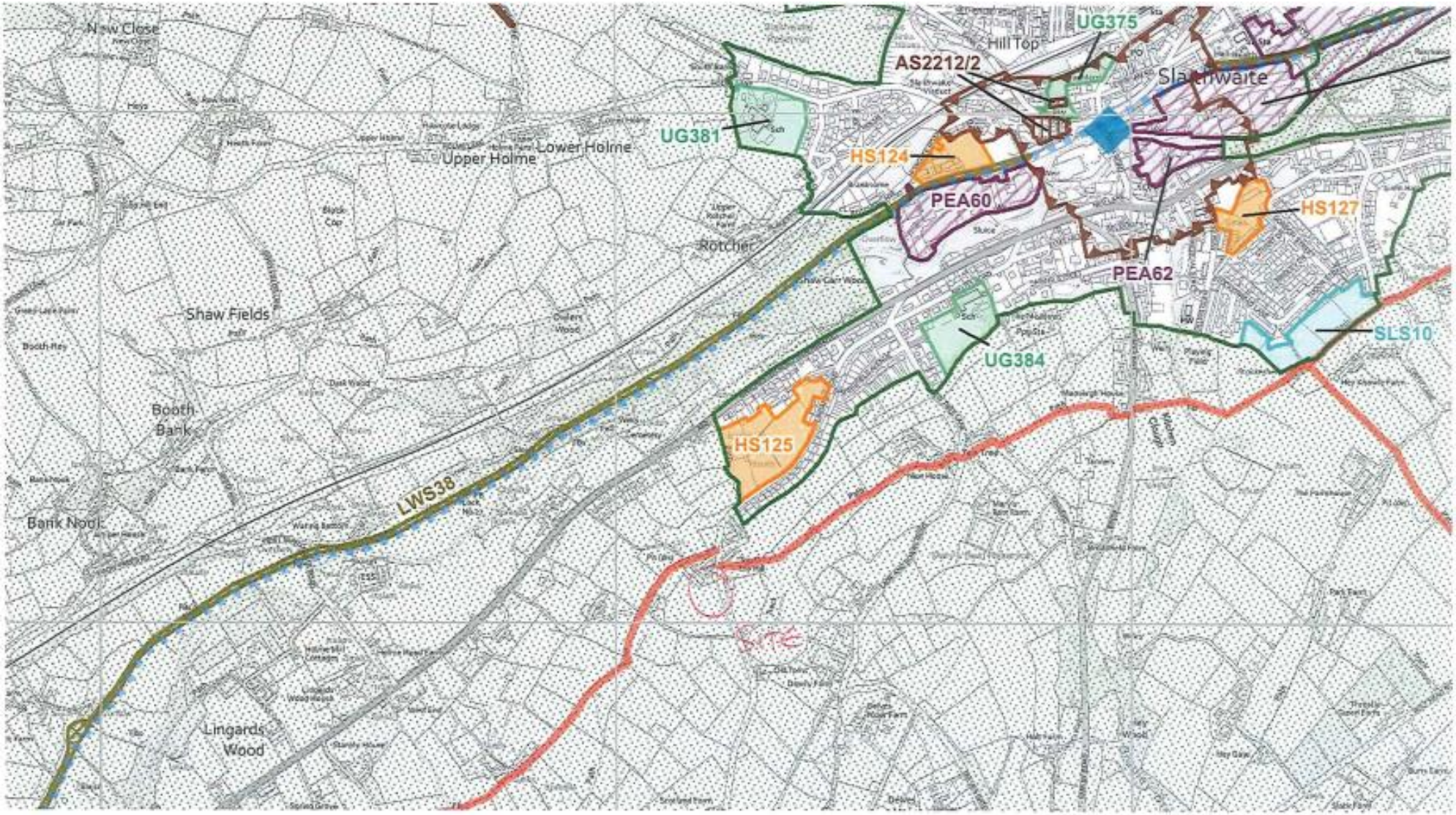
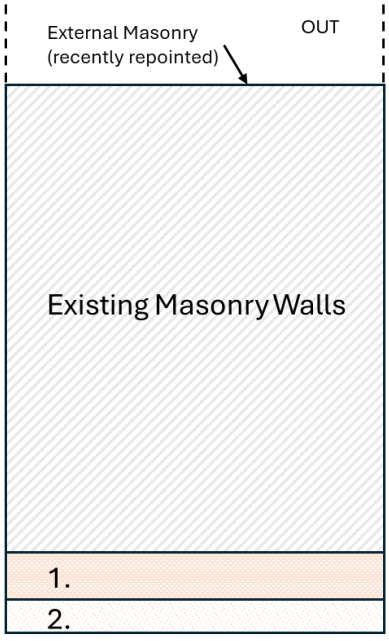
COUNCIL
4
Kirklees (West)
Policies Map
Kirklees Local Plan - Adopted 27 February 2019


New Close
Hill Top
UG375
AS2212/2
Slaithwaite
UG381
Upper Holme
Lower Holme
HS124
PEA60
HS127
Rotcher
PEA62
Shaw Fields
SLS10
UG384
Booth Bank
HS125
LWS38
Bank Nook
Lingards Wood
SITE

## Appendix B: Photos

Photo 1: Internal exposed gable wall, areas proposed to be covered with insulating lime plaster highlighted

Photo 2: Proposed internal wall buildup plans




Internal Wall Preparation:

1. 20mm Diathonite to provide breathable level surface
2. 2no. coats lime plaster (base (scratch) coat and finish coat). Base coat around 8-10mm and finish coat around 2-5mm.

Photo 3: Example finish of a lime plastered wall with lime wash

Photo 4: central chimney of the property and current H-Pot

Photo 5: Proposed traditional clay roll top style pot

Photo 6: Proposed chimney cap

Photo 7: The other chimney of the property, disused and capped

Annex C: Diathonite Specifications

# DIATHONITE EVOLUTION

*Breathable, eco-friendly thermo-plaster*

***Diathonite Evolution* is an eco-friendly *Exterior Insulation Finishing System – EIFS.* This premixed plaster is reinforced with granulated recycled cork (grain size 0-3 mm – 0-0.12 in), clay, diatomaceous powders and natural hydraulic lime (NHL 3.5). *Diathonite Evolution* is a ready-to-use highly breathable natural compound, designed for the realization of thermal coatings and dehumidification for indoor and outdoor. It is indeed a product that merges the ability of cork to insulate from cold and that of stone, which is the insulation from heat. The product has an excellent fire reaction performance (non-combustible) and it is recyclable as an inert at the end of its life cycle. The porosity of cork and the presence of lime inside the plaster make *Diathonite Evolution* bacteriostatic and anti-mould.**

## BENEFITS

- Insulates from cold and heat, ensuring good dynamic phasing parameters, up to 12 hours depending on the wall characteristics.
- High breathability.
- Avoids mould and condensation.
- Absorbs and releases the excess humidity.
- Ideal for historic restoration.
- Protects masonry in time.
- Ecologic.
- Fast construction system (*thermal brick* + *thermal plaster*), and quick application (plastering machine).
- Made of natural hydraulic lime NHL 3.5 (EN 459-1).
- Excellent compression resistance.
- It can be applied on top of old plasters.
- Reaction to fire: class A1.
- External insulation with no need for joints.
- Product with double CE (EN 998-1, EN 998-2) and UKCA certification (BS EN 998-1, BS EN 998-2).

## YIELD

3.70 kg/m$^2$ (±10%) per cm of thickness.
1.92 lb/ft$^2$ (±10%) per inch of thickness.

## COLOUR

Light grey.

## PACKAGING

18 kg (39.68 lb) paper bag.
Pallet: n° 60 paper bags (1080 kg – 2381 lb).

## APPLICATION FIELDS

Premixed thermo-plaster for indoor and outdoor applications, suitable for the realization of thermal insulation and dehumidification. *Diathonite Evolution* solves the problems related to thermal bridges and moulds induced by humidity, ensuring a healthy environment and a high living comfort. In addition, *Diathonite Evolution* is a natural compound and it is suitable where environmentally friendly materials are mandatory.

## STORAGE

Store the product in its original containers tightly closed, away from sun, water and frost,



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and kept at temperature higher than +5°C / +41°F. Storage time: 12 months.

## PREPARATION OF THE SUPPORT

The support must be completely hardened and solid. The surface must be thoroughly cleaned, dry, well-bonded, without crumbly and inconsistent parts, perfectly levelled, and free of dust and dirt. Before applying the product, it is recommended to cover each element that should not be coated.
Potential lesions or damaged parts of the support must be restored before the application of the product.

### Bricks

Primer is not needed, *Diathonite Evolution* can be applied directly to the substrate.

### Concrete

In case of distressed and crumbly concrete, restoration with suitable cement mortar should be planned. For the treatment of reinforcing steel bars apply suitable anti-corrosion products.

**Smooth**: apply the *Aquabond* primer (see technical data sheet).

**Rough:** primer is not needed, apply the plaster directly to the substrate.

### Cellular Concrete

*Diathonite Evolution* can be applied over cellular concrete panels without primer.

### Masonry

If necessary, clean the surface with water jet cleaner or brush the surface. Check the masonry, restore damaged or not fixed bricks and stones. If there is salt efflorescence, apply *Diathonite Regularization* (see technical data sheet).
To uniform the substrate, use a lime-based mortar to keep breathability.

### Old plaster

Ensure that the plaster is consistent and well attached to the support, otherwise provide for partial or total removal. Whenever salts efflorescence is present, remove the damaged plaster and apply the *Diathonite Regularization* (see technical data sheet). With painted plasters, given the wide variety of paints on the market, it is recommended to make an adhesion test to verify the suitability for the application or the need to use the primer *Aquabond*.
On smooth plasters apply the *Aquabond* primer or, if necessary, perform a staking of the support. On rough plasters proceed with the direct application of *Diathonite Evolution*.
Before the application, it is always necessary to verify that the existing plaster is compatible with the characteristics and composition of *Diathonite Evolution*.
In case of gypsum-based plasters, it is recommended the complete removal before the application of cork based thermal plaster, in order to avoid compromising the stability of the system due to material incompatibility.

### Panels

*Diathonite Evolution* can be applied on untreated cork panels without using a primer.
Due to the wide variety of panels available on the market, it is recommended to carry out an adhesion test to verify the suitability for the direct application of *Diathonite Evolution* or the need to first use the *Aquabond*.
To ensure best results, make sure that the panels are installed tightly.

### Wood

On non-treated wooden supports, proceed with the direct application of *Diathonite Evolution* plaster. With smooth or treated wood, first proceed with priming the surface with *Aquabond.*



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## MIXING

Depending on the degree of water absorption of the support, and also taking into account the environmental conditions, it is recommended to dose the right amount of water needed for achieving the correct adhesion.

Therefore, the amount of water specified is indicative.

If mixed with a **concrete mixer** or a **mixing drill**, add 11 - 14 L of clean water for each bag of *Diathonite Evolution* (18 kg). **Do not mix more than 3-4 minutes.** Load the contents of the bags inside the hopper and adjust the flow meter of the machine: firstly, set it to **400-600 L/h** to moisten the tube, and then adjust the flow to **250-300 L/h** to proceed with the application.

- The blend must present a foamy consistency
- Do not add external compounds to the mixture.

## APPLICATION

### Application by hand

1. It is **essential** to wet the support, especially in summer and in case of walls directly exposed to the sun. In case the surfaces were primed beforehand, it is not necessary to wet the support.
2. Create reference points or bands to obtain the required thicknesses. Points or bands can be made with *Diathonite Evolution* plaster or with aluminium or wood profiles. In the latter case, bands must be removed immediately after the application of the last layer.
3. Corner sections can be placed together with reference bands, in any case always before the application of the last coat.
4. To secure corners and edges provide for the use of aluminium corner guards. These aluminium guards must be fixed with *Diathonite Evolution* to avoid thermal bridges.
5. It is essential to wet the plaster before applying each layer.
6. With a masonry trowel apply a layer of *Diathonite Evolution*, taking care to create a thickness that can reach up to 4 cm (1.6 inches).
7. If the desired thickness can't be reached with the first coat, when the underlying layer is consistent to the touch and visually lighter (after about 12/24 hours) proceed with the application of one or more layers of *Diathonite Evolution* until the specified thickness is reached. In any case make sure to maintain for each applied coat a thickness ≤ 4 cm (1.6 inches).
8. At 60 mm thickness or more, a mesh such as *Polites 140* (see technical data sheet) must be included in the middle of the total thickness. *Polites 140* must be used independently of the thickness for applications on panels, wood, plasterboard or on supports subject to movement.
9. Alongside beams and pillars, the mesh shall lean on both sides of the concrete element by at least 15 cm (5.9 inches).
10. While smoothing the plaster, do not compress *Diathonite Evolution* to preserve the porosity of the product. Use an H-shape or a knife to obtain a smooth surface, with fluid horizontal and vertical movements.

### Application by plastering machine

*Diathonite Evolution* can be applied with plastering machines for lightened premixed products. The setting can change depending on the machine chosen.

It is possible to use three-phase plastering machines (similar to PFT G4) equipped with a rotor stator D6-3, a semi-closed mixing shaft, and a conical spraying gun with a diameter of 35/25 mm, a nozzle of 14 or 16 mm.



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1. It is **essential** to wet the support, especially in summer and in case of walls directly exposed to the sun. In case the surfaces were primed beforehand, it is not necessary to wet the support.
2. Create reference points or bands to obtain the required thicknesses. Points or bands can be made with *Diathonite Evolution* plaster or with aluminium or wood profiles. In the latter case, bands must be removed immediately after the application of the last layer.
3. Corner sections can be placed together with reference bands, in any case always before the application of the last coat.
4. To secure corners and edges provide for the use of aluminium corner guards. These aluminium guards must be fixed with *Diathonite Evolution* to avoid thermal bridges.
5. Wet the plaster before applying each layer. Load the contents of the bags inside the hopper and adjust the flow meter of the machine. Regulate water pressure through the flow meter, starting from a high dosage and decreasing the water flow until the consistency is suitable for the perfect grip of the material.
6. Spray the product downside up, thus applying a first coat of *Diathonite Evolution*, and always making sure to create a thickness that can reach up to 4 cm (1.6 inches).
7. If the desired thickness can't be reached with the first coat, when the underlying layer is consistent to the touch and visually lighter (after about 12/24 hours) proceed with the application of one or more layers of *Diathonite Evolution* until the specified thickness is reached. In any case make sure to maintain for each applied coat a thickness ≤ 4 cm (1.6 inches).
8. Spray *Diathonite Evolution* with as few interruptions as possible. If the interruptions require long waiting times, soak the nozzle in clean water to prevent the formation of a hard plug in the gun.
9. At 60 mm thickness or more, a mesh such as *Polites 140* (see technical data sheet) must be included in the middle of the total thickness. *Polites 140* must be used independently of the thickness for applications on panels, wood, plasterboard or on supports subject to movement.
10. Alongside beams and pillars, the mesh shall lean on both sides of the concrete element by at least 15 cm (5.9 inches).
11. While smoothing the plaster, do not compress *Diathonite Evolution* to preserve the porosity of the product. Use an H-shape or a knife to obtain a smooth surface, with fluid horizontal and vertical movements.

**Application for ventilated façade systems**

1. After preparing the substrate, install and fasten the elements that make up the substructure of the ventilated façade to the wall according to the project specifications;
2. Successively, depending on the type of substrate, assess the possible need to apply *Aquabond* primer;
3. Apply *Diathonite Evolution* according to the above-mentioned application specifications until the project thickness is reached;
4. After the necessary drying time, apply the water-repellent *BKK Eco*;
5. It is recommended to pay particular attention to the points where *Diathonite Evolution* is more subject to hygrometric stresses, such as at the base of the wall near the ground or in the joints between the flat roof slab and the external walls. At these points, the use of suitable flashings and/or localised waterproofing is highly recommended;
6. Conclude with the installation of the superstructure and all other elements necessary for the completion of the ventilated façade according to the project specifications.



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**Application to ceiling**

For ceiling applications *Diathonite Evolution* must be put in place with plastering machines for pre mixed. The setting can be changed according to the selected plastering machine. Hand application is not recommended.
It is recommended to start with a semi-fluid plaster mixture and, if necessary, adjust the flow meter to the most suitable consistency for application.

1. If the surface has not be primed with *Aquabond*, proceed by thoroughly wetting the substrate.
2. Load the contents of the bags inside the hopper and adjust the machine's flow meter.
3. Create the reference bands for obtaining the desired thickness.
4. Apply *Diathonite Evolution* in layers with a maximum thickness of 2 cm (0.78 in).
5. On still fresh product, drown the *Polites 140* mesh (see technical data sheet) at half the thickness, taking care to maintain an overlap of 3 cm on the joints. Avoid the formation of curls or bubbles. The use of the *Polites 140* is necessary on panels, plasterboard slabs, wooden slabs and in all cases where the support is subject to movement or is deteriorated. On mixed or concrete slabs, the use of *Polites 140* is not necessary below a thickness of 3,0 cm (1.18 in).
6. Apply a second layer of *Diathonite Evolution* when the underlying coat is hardened, making sure to perfectly drown the net into the plaster and avoid leaving holes on the surface. On particularly unstable supports it is advisable to fix the net with dowels or nails.
7. *Polites 140* shall be cut off at the reference bands, taking care to maintain an overlap of 3 cm (1.18 in).
8. The reference bands should be removed when the surface of the plaster is compact and not wet to the touch. The voids left by the bands should be filled with *Diathonite Evolution.*
9. While smoothing the plaster, do not compress *Diathonite Evolution* to preserve the porosity of the product. Use an H-shape or a knife to obtain a smooth surface, with fluid horizontal and vertical movements.

## DRYING TIME

At a temperature of 23 º C and relative humidity of 50% the product dries in 10-15 days.

- Drying times are affected by relative humidity and temperature of the environment, and can also vary significantly.
- If *Diathonite Evolution* is applied in high thicknesses, the drying time is considerably longer.
- Protect *Diathonite Evolution* from frost, direct insolation and wind while it is still curing.
- In case of high temperatures, hot sun or strong ventilation it is necessary to wet the plaster even 2/3 times a day for the first 2/3 days after application.
- At temperatures above 28 ºC (+ 83 °F) wet the plaster every 2 hours to avoid cracks.
- If applied indoors, aerate as much as possible the environment during application and during drying of the product.
- As soon as *Diathonite Evolution* has dried, it is recommended to cover the plaster using the chosen finishing system.
- If applied outdoors, in order to avoid prolonged exposure to harsh weather conditions, it is essential to proceed as follows: after applying the last layer of *Diathonite Evolution* and waiting for its complete curing (not earlier than 10-15 days), it is recommended to cover the plaster with the chosen smoother. When the latter is fully cured (not earlier than 7 days), apply the finish.



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For smoothing the plaster, both indoors and outdoors, it is possible to use *Argatherm* (to obtain medium rough surfaces with particle size 0-0,6 mm or 0–0,02 inches) and *Argatherm Ultrafine* for perfectly smooth surfaces.

For finishing these skim coats, use products such as *Decork Façade, Acrilid Protect Coating,* and be sure to use only breathable and water-repellent finishes for **exterior** applications.

For **indoor** applications, use instead finishes such as *Decork Design, C.W.C. Stop Condense, Limepaint*, or in any case breathable finishes. It is always recommended to prefer Diasen finishes.

## SUGGESTIONS

- Do not apply at environmental temperature or at support temperature lower than +5°C (34°F) and higher than +35°C (95°F).
- During summer season, apply the product in the cooler hours of the day, away from sunlight.
- Do not apply with imminent threat of rain or frost, in conditions of strong fog or with relative humidity higher than 70%.
- Where it is considered necessary, and only after contacting the technical office of the Diasen, it is possible to proceed with the application, by hand or by machine, of a first layer of *Diathonite Evolution* as a rough coat.
- *Diathonite Evolution* can be used with plastering machines for ceiling applications. Hand application is not recommended.
- If applied indoors, it is **essential** that the external surface does not absorb water. Otherwise, treat the surface with *BKK Eco*.
- In case of exposed walls, apply a water-repellent and breathable transparent siloxane product, such as *BKK Eco*.
- It is strictly recommended to waterproof and protect the areas which are mostly subject to hygrometric stress, such as at the bottom/base of the façades where it meets the ground, the joints between the flat roof slab and the façades and any part around windows and doors which may be subject to water infiltrations.
- Whenever there are doubts about the consistency of the substrate, it is recommended to make an adhesion test area.
- The test area should allow to verify any chemical, mechanical and physical incompatibilities between *Diathonite Evolution* and the support.

## CLEANING

The equipment used can be washed with water before hardening of the product.

## SAFETY

While handling, always use personal protective equipment (PPE) and respect the instructions described in product safety data sheet.



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* These data, even if carried out according to regulated tests, are indicative and they may change when specific site conditions vary.

## Technical Data*

| Features | | Unit |
|---|---|---|
| **Yield** | 3.70 (±10%) for each cm of thickness | kg/m² |
| | 1.92 (±10%) per inch of thickness | lb/ft² |
| Aspect | powder | - |
| Colour | light grey | - |
| Density | 360 ± 20 | kg/m³ |
| | 22.5 ± 1.25 | lb/ft³ |
| Grain size | 0 – 3 | mm |
| | 0 - 0.12 | in |
| Water to add to the mixture | 0.60 – 0.80 L/kg<br>11 - 14 L for each 18 kg bag | L/kg |
| | 0.072 – 0.096 gal U.S.<br>per paper bag (39.68 lb) | gal U.S. / lb |
| Application temperature | +5 / +30 | °C |
| | +41 / +95 | °F |
| Workability time<br>(UNI EN 1015-9 – method B) | 40 | min |
| Minimum thickness for application | 1.5 / 0.6 | cm / inches |
| Maximum thickness for each layer | 4 / 1.6 | cm / inches |
| Maximum thickness for each layer<br>*for ceiling applications* | 2 / 0.8 | cm / inches |
| Maximum thickness<br>*for ceiling applications* | 4 / 1.6 | cm / inches |
| Drying time (T=23°C; U.R. 50%) | 10-15 | days |
| Storage | 12 | months |
| Packaging | 18 kg (39.68 lb) paper bag | kg |

| Final performances | | Unit | Regulation | Results |
|---|---|---|---|---|
| Reaction to fire | class A1 | - | UNI EN 13501-1 | - |
| Compressive strength | 2.95 | N/mm² | EN 998-1 | category CSII |
| | 427.9 | lbf/in² (psi) | | |



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| | | | | |
|---|---|---|---|---|
| | $6.161 \times 10^4$ | psf | EN 998-2 | M 2.5 |
| Flexural strength | 1.5 | $N/mm^2$ | UNI EN 1015-11 | - |
| | 217.6 | $lbf/in^2$ (psi) | | |
| | $3.13 \times 10^4$ | psf | | |
| Dried mortar porosity | 71.64% (17.83% macroporosity and 54.94% microporosity) | - | - | - |
| Vapour permeability coefficient (μ) | μ = 4 | - | UNI EN 1015-19 | highly breathable |
| | WVT = 14 | $grains/h \cdot ft^2$ | ASTM E96 | |
| Thermal conductivity (λ) | 0.045 | W/mK | UNI EN 1745 | category T1 |
| Thermal resistance (R) *for 1 cm/ 0.4 in thickness* | 0.222 | $m^2$ K/W | UNI 10355 | - |
| Specific heat capacity (c) | 1000 | J/kgK | UNI EN 1745 UNI EN 10456 | - |
| | 0.239 | kcal/kg °C | - | - |
| Thermal diffusivity (*a*) | $0.125 \times 10^{-6}$ | $m^2/s$ | UNI TS 11300-1 | - |
| Water absorption by capillarity | 0.40 | $kg/m^2\ min^{0,5}$ | UNI EN 1015-18 | category W1 |
| Water penetration depth *(after 90 minutes)* | 40 | mm | UNI EN 1015-18 | - |
| | 1.57 | in | | |
| Adhesion onto the support (*brick*) | 0,10 | $MPa = N/mm^2$ | UNI EN 1015-12 | break type B mortar break |
| | 14.5 | $lbf/in^2$ | | |
| Adhesion on *tuff* | 0.201 | $MPa = N/mm^2$ | UNI EN 1015-12 | - |
| | 29.15 | $lbf/in^2$ | | |
| Adhesion on wood fibres panels | - | - | UNI EN 1015-12 | good |
| Marble adhesion onto *Diathonite Evolution* | 0.241 | $MPa = N/mm^2$ | UNI EN 1015-12 | - |
| | 34.95 | $lbf/in^2$ | | |
| Stone adhesion onto *Diathonite Evolution* | 0.241 | $MPa = N/mm^2$ | UNI EN 1015-12 | - |
| | 34.95 | $lbf/in^2$ | | |
| Tensile secant modulus | 742 | $N/mm^2$ | UNI 6556 | highly elastic |
| | 107618 | $lbf/in^2$ | | |



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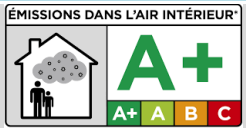
# DIATHONITE EVOLUTION

*Breathable, eco-friendly thermo-plaster*

| Indoor Air Quality (AIQ) Certification | | |
|---|---|---|
| **Evaluation of the results** | | |
| **Regulation or protocol** | **Version of regulation or protocol** | **Conclusion** |
| French VOC Regulation | Decree of March 2011 (DEVL1101903D) and Arrêté of April 2011 (DEVL1104875A) modified in February 2012 DEVL1133129A) |   |
| French CMR components | Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A) | Pass |
| Italian CAM Edilizia | Decree 11 October 2017 (GU n.259 del 6-11-2017) | Pass |
| AgBB/ABG | Anforderungen an bauliche Anlagen bezüglich des Gesundheitsschutzes, ABG May 2019, AgBB August 2018 | Pass |
| Belgian Regulation | Royal decree of May 2014 (C-2014/24239) | Pass |
| Indoor Air Comfort® | Indoor Air Comfort 7.0 of May 2020 | Pass |
| Blue Angel (DE-UZ 113) | DE-UZ 113 for "Low-Emission Floor Covering Adhesives and other Installation Materials" (Version January 2019) | Pass |
| BREEAM International | BREEAM International New Construction v2.0 (2016) | Exemplary Level |
| BREEAM® NOR | BREEAM-NOR New Construction v1.2 (2019) | Pass |
| LEED® | "Low-Emitting Material" according to the requirements of LEED v4.1 | Pass |
| CDPH: Classroom scenario | CDPH/EHLB/Standard Method V1.2. (January 2017) | Pass |



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