

CLAYFIX

Lehm direkt.



JADE GREEN 1.2
tested in accordance with



Worksheet 6.3

CLAY
Building with Clay.

Basis and preparation for CLAYFIX Clay Direct

General preparation of the substrate

As with all substrates for coatings, the surface must be fully dry, stable, firm, smooth, clean, dust-free and free of fatty residues and stains. Any sustained levels of moisture or salt contamination must be remedied prior to painting. The substrate to be coated and the ambient air temperature must be at least 5°C.

The surface finish of the substrate – how level, smooth and even it is – has a strong impact on the end result. To avoid misunderstandings in what constitutes a good surface, especially where dry lining is concerned, a specific surface finish quality should be specified rather than general terms such as “ready to paint” or “paint-ready finish”. Substrates for clay coatings should correspond to quality level Q3 or Q4.

For CLAYTEC clay plaster substrates, we advise priming the surface with our *WHITE primer*. It provides a good basis for painting and lightens the brown surface of the clay plaster. It contains no granular particles. The 10 litre bucket is sufficient for 120 m² (CLAYTEC 13.415), the 5 litre tub (CLAYTEC 13.410) for 60 m².

CLAYFIX *Clay Direct* can be applied directly to most typical substrates. If unsure, prime with *WHITE primer*.

When applying paint or plaster, avoid draughts from open windows or heating. As with any painting work, the surfaces of other building elements must be covered and protected against soiling.



EXPERT TIP

For a more effective blend with the subsequent layer of coloured plaster, a small amount – up to 10% by proportion – of clay paint or brushable plaster can be mixed into the *WHITE primer*.

IN ALL CASES: TEST ON A TRIAL SURFACE!

All the details on substrates provided here are based on experience. However, as each situation varies (different roughness, suction characteristics or surface stability), a different approach may be advisable. **It is therefore always a good idea to evaluate the respective combination of factors on site. This is ultimately the responsibility of the person applying the coating. To properly evaluate the end result, a sufficiently large test area should be undertaken on the surface in question.** This can be used to assess the resulting surface quality and colour.

PREPARATION CHECKLIST FOR DIFFERENT SUBSTRATES

CLAYTEC clay plasters, clayboards

- Finely rub down or smooth clay plaster surfaces
- Apply a coat of clay fine-finish topcoat plaster to clayboard surfaces
- Brush down all surfaces
- Prime with *WHITE primer*

- Check for presence of stains that may show through
- Repair plaster with a mineral mortar that corresponds to the existing plaster
- If necessary, prime with *WHITE primer*

CLAYTEC earth bricks, green unfired bricks

- For a rustic look
- Pre-treatment as above

Concrete

- Check for residues of shuttering release agent
- When applying strong or dark colours, neutralise with fluorosilicate application
- If necessary, prime with *WHITE primer*

Existing mineral plasters

- Wash down chalky substrates
- Remove remains of wallpaper and any residues of wallpaper paste
- Stabilise sandy substrates with CLAYTEC deep penetrating primer and stabiliser

Resin-bonded existing plasters

- Check plaster stability
- Fill rough sections with dispersion filler mass
- Only prime high suction substrates

Porous dispersion paints

- Carefully check surface stability (conduct a test)
- Roughen/sand very smooth surfaces
- Apply filler to very rough surfaces (dispersion)
- Priming is usually not necessary

Plasterboard and gypsum fibreboard

- Prepare surfaces carefully for surface coating, usually surface quality Q3
- Carefully prime with *WHITE primer*

Paper and glass fibre wallpaper

- Check adhesion stability carefully
- Prime highly absorbent wallpaper
- Vinyl wallpapers (foam) are unsuitable

Preparation of brushable plaster and paints

CLAYFIX *Clay Direct* brushable plaster and clay paint is prepared by mixing 10 kg of dry mass with 7.5-8.0 litres of water mixing with a motorised paddle mixer drill at a high rpm for about 3 minutes. The mixture is left to soak for 30 minutes and worked through once more for 1-2 minutes prior to application. The material consistency should be thick enough not to drip from the brush when applying. A thinner consistency is possible if applying in several coats. Mix the prepared plaster at regular intervals while working to prevent fine particles and solids from settling to the bottom, especially when using CLAYFIX *Clay Direct* brushable plaster. If left to stand for a prolonged period, the sediment must be scooped from the base of the mixing container with a stainless utensil (e.g. a bucket trowel). Already mixed brushable plasters and clay paints remain workable for 24 hours if covered or re-sealed in a closed container. All coloured clays can be mixed with one another.



Mixing CLAYFIX powder with water



Leave to soak for 30 minutes and mix well



Mixing stirrer



Adding pigment in a hollow in the dry mix



Drill a hole in the lid and mix the dry constituents with the lid on

EXPERT TIP

Pigments are always mixed into the dry mix as it is easier to assess proportions and achieve a homogenous mix

Applying the coating

To achieve the best end result, apply CLAYFIX *Clay Direct* brushable plasters and clay paints with a broad oval wall paint brush or a wide rectangular wall brush. Good quality brushes help produce better results. The paint is applied using a traditional horizontal figure of eight motion producing crosswise strokes. The best results are obtained when the brush stroke varies from horizontal to vertical and diagonal, working quickly on a small surface. The coating can also be applied with a spray pistol. When painting, avoid draughts from ventilation, heating or artificial fans and ventilators.

EXPERT TIP

The coating should always be applied wet-in-wet to avoid visible transitions when painting over already dried sections with fresh paint or plaster.

Crosswise application



Crosswise strokes



The resulting surface



An airless spray gun, for example the SATA MINI SET 2, is an especially effective means of applying CLAYFIX *Clay Direct* plasters and paints.

Number of coats

In general, if the substrate has good suction characteristics and a light colour, a single coat is sufficient. CLAYTEC clay plasters are darker and should first be primed with WHITE primer. To achieve an especially good and even finish, a two-coat application can be necessary. If in doubt, conduct a trial to determine necessity. The second application has a transparent stain-like quality when wet, becoming fully opaque once dry.

Basic principles for a good surface finish

CHECKLIST

- The substrate must be stable and should not rub off.
- Drywall and dry lining surfaces should have a surface finish quality of Q3 or Q4.
- Highly alkaline surfaces (concrete) must be neutralised (fluorosilicate) before applying strong or dark colours.
- Pre-treat any stains with a suitable stain blocker.
- Prime CLAYTEC clay plasters and possibly other substrates with WHITE primer.
- After mixing, CLAYFIX should be left to soak for 30 minutes and then worked through thoroughly.
- Apply with a good brush in an alternating crosswise motion.
- Ensure heating or ventilation does not produce draughts while applying the coating.
- **IN ALL CASES CONDUCT A TRIAL IN ADVANCE!**

Durability and renovations

When renovating or repairing surfaces painted or plastered with CLAYFIX *Clay Direct*, bear in mind that both plaster and paint is water soluble. New coats with the same base material can be applied without special preparations but taking care not to overly wet the wall surface. Should the surfaces be repainted at some point in time with a coating that sets hard (e.g. dispersion paint), CLAYFIX surfaces should first be stabilised with a normal stabilising agent or, ideally, washed off (conduct a trial first!).

Special techniques

Surfaces with a mix of colours



When painting surfaces with several colours, **a single brush** is used and **dipped alternately** into two or more paint buckets

Fibreglass textile wallpaper



Fibreglass textile wallpaper is conventionally applied with dispersions and painted over. Using **CLAYFIX Clay Direct** enables the surface to remain breathable. **CLAYFIX** acts as both adhesive and paint and the wallpaper can be worked in wet in wet.

Working with stencils

In our accessories catalogue, we offer a range of stencils with ethnic themes predominantly from Africa and Japan. These stencils can be used to add decorative motifs or borders to wall surfaces.

The stencils are fixed flat to the substrate with a removable adhesive. **CLAYFIX Clay Direct** brushable plaster or clay paint is then applied with a stippling brush. To create profiled relief-like motifs, **YOSIMA** clay design plaster can be applied with a spatula or Japanese trowel. Especially interesting effects can be achieved through a combination of flush and profiled techniques on the same surface.

Some of the stencil motifs and decorative possibilities using **CLAYFIX Clay Direct** are shown on the following pages.

Please note: The information provided in this worksheet is the product of extensive experience of earth building work and the use of our products. Nevertheless, this technical information cannot be regarded as legally binding. These notes assume a sufficient level of craftsmanship skills and experience, and knowledge of the relevant building trades. The most recent valid edition of this worksheet is always available from www.claytec.com. Reproduction and publication of these notes or parts thereof is not permitted. Copyright CLAYTEC e.K.

Product overview

WHITE primer

This cost-effective, ready-to-use WHITE primer is for pre-treating CLAYTEC clay plaster surfaces and other similar substrates. It has no granular component. The 10 litre bucket is sufficient for 120 m² (CLAYTEC 13.415) and the 5 litre tub for 60 m² (CLAYTEC 13.410).



CLAYFIX Clay Direct clay coatings

CLAYFIX *Clay Direct* clay brushable plasters and clay paints are available in 12 selected colours. They correspond to the colours of the YOSIMA EDITION, a selection of the full range of YOSIMA clay design plasters. They are available in 1.5 kg bags and 10 kg buckets.

Article	Product	Supply form	Coverage
18. ...	CLAYFIX brushable plaster	Dry, 10 kg bucket	~60 m ² depending on substrate*
18. ... /K	CLAYFIX brushable plaster	Dry, 1.5 kg bag	~9 m ² depending on substrate
19. ...	CLAYFIX clay paint	Dry, 10 kg bucket	~60 m ² depending on substrate*
19. ... /K	CLAYFIX clay paint	Dry, 1.5 kg bag	~9 m ² depending on substrate

* ~60 m² when applied thick in a single coat to a surfaced primed with WHITE primer. ~50 m² when applied in two coats (thinner). Coverage may vary depending on the substrate and utensil(s) used!

Pigment additives

Colours that do not naturally occur in natural earths in a sufficient intensity can be achieved through the addition of mineral pigments. The CLAYFIX *Clay Direct* brushable plaster or clay paint WHITE serves as the mixing base. A wide range of high-quality pigments are available, for example, from www.kremer-pigmente.de. Pigments are always mixed into the dry mass. Care should be taken not to add too much pigment or the coloured plaster surface may be susceptible to rubbing off.



CLAYFIX *Clay Direct* stencils

Since time immemorial, earth has been used as building material all over the world. In all cultures, earth was one of the first materials used to make houses. And these houses were more than merely utilitarian shelters. The artistic and sculptural qualities, as well as colourful, ornamental decorations of earth buildings are to this day a typical characteristic around the world. Often these take the form of simple, ethnic motifs. Our stencil collection makes reference to this tradition.

Our stencils have been exclusively designed for Claytec, and are manufactured to meet the demanding standards of today's tradesmen. They are suitable for use with CLAYFIX *Clay Direct* clay coatings, and also for YOSIMA clay design plasters. The motifs make reference to two key earth building cultures: that of Africa and of Japan. Further information on our stencils is available on homepage under: www.claytec.com/produkte/werkzeuge-und-zubehoer.html



Africa WATERHOLE



Africa CAVE PAINTING



Africa HUNTING SCENE (DETAIL)



Japan PAGODAS, LARGE BAMBOO



Japan DUCK POND

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