



Casein Paint DIY

Product information article no. 101

09.08.2018

■ General

It's this color that started our company. Originally conceived as a pure demonstration to illustrate historical non-toxic colour preparation as an alternative to environmentally harmful dispersion paints (ecomarket in Hildesheim, approx. 1985), it quickly developed into a bestseller which led to the foundation of our company Kreidezeit.

Make your own casein paint from low-fat curd cheese, soda and a chalk sump. Experience the excellent spreadability, the enormous opacity and the suitability for everyday use of this simple paint.

Casein paints are wall and ceiling paints whose binders are pure natural milk protein (casein). Even in ancient Egypt, colours were produced and processed from milk and earth pigments. The same can be seen from ancient Hebrew texts. Wall paintings in the Sistine Chapel (Secco Technique) owe their durability to the same old recipes.

Modern casein paints are produced as powders. Shelf life is extended to several years. There is no need for preservatives, the transport weight and thus transport costs are reduced to a minimum and packaging waste is minimised. Casein paints are biologically harmless throughout their entire product life cycle (raw material extraction, use, disposal). Residues of paint can even be composted.

■ Uses

Wall and ceiling paint for interior use. Suitable for all structurally-sound, absorbent indoor renders (clay, lime, gypsum and cement), fillers, ingrain wallpaper, pure wallpaper, paper fleece, plasterboard, gypsum fibreboards and concrete. Also suitable for firmly ingrained, matt and absorbent emulsion paints (please always test on a small sample area first.) For wet rooms, we recommend Kreidezeit Lime Paint (article no. 888).

■ Properties

- Powder for mixing with water
- Easy to use
- Very open to diffusion, antistatic
- Excellent opacity
- Natural white, without Titanium White
- Wiping resistant and several times overcoatable.
- All ingredients from natural sources
- Free of antidegradants
- free of synthetic resin binders

■ Composition (Full Declaration)

Chalk, china clay, soda (in small red bag)

■ Suitable Tools

Good quality, medium-pile paint roller (polyamide) and paint brush. Recommended from the Kreidezeit range:

Facade brush (article no. P 6080)

Lime brush (article no. P 6082)

Professional roller (article no. 6365)

Professional roller (article no. 6565)

■ Substrate requirements

The substrate must be **absorbent**, structurally sound, clean, dry, solid, non-greasy and free from colouring and permeating ingredients.

■ Preparing the substrate

Thoroughly remove old distemper coats and any other old chalking, loose or unworkable coats. Thoroughly wash any wallpaper adhesive residue off the substrate. Thoroughly sweep sanded surfaces.

Remove binder accumulations and sinter skin from render surfaces. Remove mould oil residue from concrete surfaces. Remove any loose render or wall parts and touch up with a similar material. Penetrating and colouring ingredients in the substrate can be sealed off with Shellac Sealing Primer (article no. 234) before the paint is applied.

Clean any mouldy mineral substrates with soda (article no. 993) or treat with Fungi Stop (article no. 620).

Completely fill any drywall (plasterboard, fibreboard, etc.) (Q4) or cover fully with Paper Fleece (article no. 007). Fully cover any render substrates with a different structure, different absorbency or any touch-ups using paper fleece, or completely fill with Kreidezeit Wall Filler or Lime Wall Finish to at least 1.5 mm.

■ Primer

Apply a base coat to all renders, fillers, levelled drywall, concrete and old emulsion paints with Vega Primer (article no. 2104) or Casein Primer (article no. 145) and leave to dry completely. Do not apply to paper fleece/wallpaper.

■ Mixing The Paint

Required are: 2500 g low-fat curd cheese, an empty 10-litre bucket, a 5-litre bucket or mixing bowl, a drill with whisk, a stirring spoon or kitchen mixer.

1. Open the paint bag and take out the small red bag with soda.
2. Pour 2.5 litres of cold water into the large bucket, add the white paint powder (7kg), stir vigorously with a drill and whisk and leave to stand for 2 hours.
3. Dissolve the soda (red bag in the colour bag) in approx. 200 ml hot water.
4. Pour 2500 g low-fat curd cheese into the small bucket, pour in the soda solution, stir thoroughly with stirring wood or mixer and leave to stand for 2 hours. During this time, the soda turns the casein into a glue.
5. Pour the curd mixture into the large bucket with the paint sump and mix it vigorously with drill and whisk. The paint is now ready for use.



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■ Dilution

Adjust paint/water mixture to suit the surface; i.e. a little more water may be required for a particular application.

■ Application

Application temperature at least 8°C.

Stir occasionally during application.

Two coats are typically required for full opacity. Do not attempt to cover dark and high-contrast substrates with only one coat of paint; excessive application thicknesses can lead to damage to the coating! Allow previous coats to dry completely before applying another coat. During the application, the wet paint is translucent; it only becomes fully opaque once drying is complete.

- Using a paint brush:

Apply evenly with a facade brush in a criss-cross pattern.

- Using a roller:

Apply the paint **liberally** and evenly in a criss-cross pattern. Then immediately use a roller in a single direction, without applying any further paint.

The Paint must be applied on the same day as mixing. Do not use paint that smells bad or rotten under any circumstances: Danger of prolonged odour problems even after drying!

■ Tinting

Casein Paint DIY can be tinted with up to 10% Kreidezeit earth and mineral pigments (max. 100 g pigment per 1 kg paint powder). Either stir the pigment directly into the preparation water until smooth before mixing in the white paint powder, or create a paste with a little water and then mix in with the finished Casein Paint.

For tinting, please see our Kreidezeit Wall Paints and Renders colour fan. The colour fan is available online at www.kreidezeit.de. Printed versions are available from Kreidezeit and Kreidezeit dealers.

■ Renovation

Casein Paint DIY can be coated with Kreidezeit Casein Paint DIY, -Vega Wallpaint, -Lime Paint, -Clay Paint and -Distemper. A previous coat of Vega Primer (article no. 2104) or Casein Primer (article no. 145) makes it easier to paint over.

■ Drying Times at Normal Climate

Safe to coat after approx. 8 hrs.

Thoroughly dried after approx. 24 hrs.

■ Consumption

On even and normal absorbent surfaces approx. 175 g of paint powder per m² per coating. Accurate consumption values to be determined on site.

■ Package Sizes:

	Content	Range
Article no. 101	7 kg	40 m ²

Please refer to the valid price list for product prices.

■ Storage

When stored in a dry place, the paint powder can be stored indefinitely.

■ Cleaning The Tools

Immediately after use with water.

■ Disposing Leftover Product

Do not dispose of leftover product down the drain. Leftover product can easily be composted or disposed of in the household waste when dry. Empty packaging can be recycled.

■ Hazard Classification

None, non-hazardous product.

■ EU VOC Value acc. to 2004/42/EC

VOC limit / Max. VOC content (cat. A/a): 30 g/l (2010),
Product contains max. 1 g/l VOC.

■ Tips

Overcoating of old dispersion paints:

The old paint must be stable, matt and slightly absorbent. For better adhesion to the substrate we recommend an addition of 30 ml Safflower oil (low-yellowing, Art. 370) for 1 kg of paint powder used. The oil is added to the readily mixed Casein Paint DIY, stirring vigorously.

Dirty dispersion paints must be cleaned before applying the Casein Paint, e. g. with soda (Art. 992). In these cases, the suitability of the paint should generally be tested on site by setting up a trial area.

■ Notes

Casein paints have a typical odour during processing, which disappears over time in a dry environment. Observe possible allergies to natural substances. Keep out of reach of children.

The information above was determined based on our most recent experiences. Due to application methods and environmental influences, as well as the varying nature of the substrates, liability for the general validity of the individual recommendations is excluded. Users must test the product prior to application to ensure it is fit for the designated purpose (sample coating).

This document is no longer valid if a new version is published or the product is modified. For the latest product information, please contact Kreidezeit directly or visit our website at www.kreidezeit.de