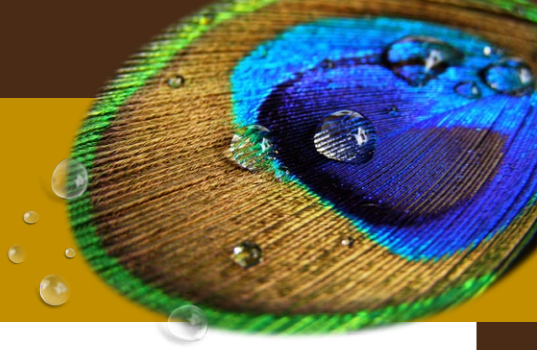
Structural Casein Paint

Fine grained casein coating for lime, gypsum and clay or loam as well as for the AGLAIA Wall Glazing Technique



Can be used universally on firm walls and ceilings in domestic and public use areas, in schools and kindergartens. Due to its textured grain (0.4 mm) it creates a lively, attractive scattered light effect, for example, on lightweight building boards. Ideal for nonwoven wall coverings, lime and gypsum plaster, gypsum board, clay or loam and firm old coatings. For a pastel colour, can be tinted with AGLAIA Natural Resin Full Colour Paints.

1. Product Properties

AGLAIA Structural Casein Paint in combination with the AGLAIA Wall Glazing Technique has for more than 4 decades been tried and tested in practice on millions of square metres of building surfaces. Combines outstanding functional and working properties with an absolutely positive building biology profile. Is ideally suited for healthy wall materials such as (air)-lime plasters and clay or loam and is just as suitable for use in new build as in renovation projects. Efficient application with a brush or roller.

1.1. Composition

- Casein, vegetable oils and tree resins
- Mineral pigments: lightfast and of natural origin
- Quartzitic texture grain approx. 0.4 mm
- Free from plasticisers and synthetic resins
- Solvent-free, low emissions and low VOC
- "Transparent recipe": see AGLAIA full declaration

1.2. Technical properties

1.2.1. Overview

- Use on interior surfaces
- Attractive grain texture (0.4 mm)
- Lime matt, subtle surface finish
- Highly opaque and high yield
- Chalking-free, low tension clay or loam coatings
- Low yellowing effect
- Extremely water vapour permeable
- Can be colour-glazed
- Ready-to-use

1.2.2. Important building physics characteristics

Parameter	*Value*	*Conformity*
Density $_{20°C}$:	1.57 kg / L	
pH value $_{20°C}$:	9	
Dynamic viscosity $_{20°C}$:	8,000 mPas	
W_{24} value:	0.50 kg/(m²h$^{1/2}$)	
s_d value (H_2O):	0.05 m	
Hiding power / Contrast ratio:	Class 2	EN 13300
Wet-scrub resistance	Class 3	EN 13300
Grain size:	coarse (0.4 mm)	EN 13300
Gloss level at 85°C:	dull matt	EN ISO 2813
Flammability class:	A 2 Non-flammable	EN 13501-1, DIN 4102
VOC content (max.):	3 g / L	ChemVOCFarbV (Regulations limiting VOC emissions of paints and lacquers), Cat. A / a

1.2.3. Colour

- White and Off-White.
- Tintable pastel colour can be achieved with AGLAIA Natural Resin Full Colour Paint with no more than 20 % full colour content.

AGLAIA® Natural Paints

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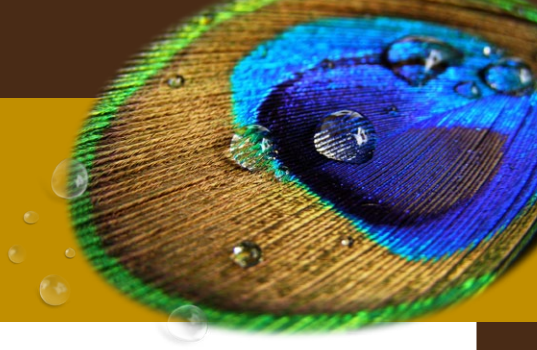

2. Use

2.1. Substrate requirements

- The substrate must be clean, dry, firm and stable and must be free from efflorescent and separating substances.
- Check drying and strength of new plaster.
- Carefully make good chipped surfaces and misses with the same type of material and the same texture.
- Use plaster to repair cracked substrates. Areas with individual hairline cracks and minor structural defects can be precoated all over with AGLAIA Structural Casein Paint; try out on a test area. Alternatively, cover with nonwoven wall covering.
- Ensure uniform substrates and careful application, especially if using wall glazing techniques on high visual quality surfaces and in glancing light.
- Textured paints are not very suitable for ceiling areas as it is more difficult to achieve uniform grain distribution when applied overhead. Recommendation: AGLAIA Casein Paint.

2.2. Brief information on the standard system

- Apply two coats of AGLAIA Structural Casein Paint.
- Add water to AGLAIA Structural Casein Paint for the priming coat and final coat to make it optimally coatable for the substrate and for use.
- Prime absorbent areas with AGLAIA Wall Primer, if necessary prepare critical substrates with AGLAIA Natural Resin Bonding Coat.
- Seal efflorescent substrates as well as rust and water stains with AGLAIA White Isolating Primer.

2.3. Substrate and preparatory treatment

- ***Lime plaster (PI/CSII), lime-cement plaster (PII), cement plaster (PIII) gypsum plaster, plaster stucco:***
  Check drying and strength of plaster or render. Check new plaster for sinter skin; remove any sinter skin found by sanding. Prime absorbent plaster with AGLAIA Wall Primer, thinned with 2 parts water. Consolidate superficially sanding, but nonetheless firm plaster with AGLAIA Penetrating Primer (solvent-based!).
- ***Gypsum boards:***
  Ensure proper installation and required surface quality and evenness tolerances under the given on site and glancing light conditions (VOB/C and quality level 3 or 4, according to good practice guide No. 2 issued by the German gypsum industry association (Bundesverband der Gipsindustrie e.V.)). Prime gypsum board with AGLAIA Wall Primer, thinned with 2 parts water. An exception is water-repellent impregnated wet room boards; these are not to be primed. Recommended for AGLAIA Wall Glazing Technique: full surface bonding of nonwoven wall covering on lightweight building boards.
- ***Clay or loam:***
  Clay or loam must be through-dry, firm and stable. Repair cracks with plaster beforehand, brush off any sanding grain. Apply thick, saturating priming coat with AGLAIA Wall Primer, thinned with 2 parts water. Then apply 2 – 3 thin coats of thinned AGLAIA Structural Casein Paint. Always try out on a test area first before using on clay or loam!
- ***Wood-based materials (OSB, particleboards, MDF):***
  Precoat with AGLAIA Penetrating Primer and AGLAIA White Isolating Primer. Always try out on a test area on site. Not suitable for surfaces exposed to splashing or spray water, e.g. in sanitary units.
- ***Calcium silicate masonry, brick:***
  Clean the surface thoroughly and check for absorbency, moisture damage and efflorescence (e.g. salt edges). Make good crumbling bricks and joints. Coat highly absorbent substrates with AGLAIA Penetrating Primer (solvent-based!).
- ***Concrete:***
  Thoroughly clean with water and formwork release oil remover and rinse off with clean water. Test the wettability of the cleaned substrate by spraying on water. Prime highly absorbent areas with AGLAIA Wall Primer, thinned with 2 parts water. For an even wall design, free from voids or shrink holes, coat the whole surface with cement filler or nonwoven wall covering.
- ***Nonwoven wall covering, fabric:***
  Check for full, homogeneous and overlapping-free bonding of the whole surface, including in the area of joints, especially if using the AGLAIA Wall Glazing Technique. Suitable only for water-wettable, overcoatable nonwoven wall coverings.
- ***Old coatings:***
  Clean thoroughly matt, absorbent and fully adhering synthetic resin or natural resin-based emulsion coatings. Overcoat directly with AGLAIA Structural Casein Paint, we recommend that you try out on a test area on site. Remove lacquer, oil and latex coatings, if necessary degrease, sand down surface until matt and precoat with AGLAIA Natural Resin Bonding Coat. Brush off chalking coatings. Renovate highly alkaline limewash and silicate system coatings with BEECK Mineral Paints.
- ***Unsuitable substrates*** are less stable, efflorescent and non-porous substrates, e.g. plastics and metals.
- ***Defective substrates*** require a differentiated approach. Rooms with continuously high humidity and mould problems are unsuitable. Apply a renovation plaster to damp, salt contaminated surfaces, basement walls and base areas, and coat with BEECK Mineral Paint.

2.4. Application instructions

2.4.1. General information

Check substrate suitability as required (see 2.1 and 2.3). Pay particular attention to the absorbency, strength and texture of the respective substrate. Try out on a test area before using on high quality and critical surfaces. Ensure that the product is used by qualified persons only.

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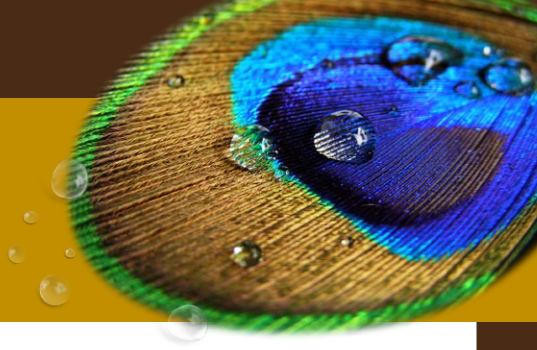

- Carefully cover surfaces which are not to be treated – especially floors, windows, furniture and expansion joints – and protect them from splashes.
- Only use containers from the same production batch to coat self-contained areas.
- Ensure sufficient qualified workers and smooth, uninterrupted coating process, especially if using wall glazing techniques.
- Before use, stir AGLAIA Structural Casein Paint thoroughly with a powered mixing paddle before use.
- Add water to make optimally coatable.
- Do not apply on heated or chilled through areas.
- Minimum application temperature: +16°C.
- Drying time: at least 16 hours per coat. Wait at least 2 days before applying wall glaze with AGLAIA Beeswax Glaze Binder.
- Ensure sufficient ventilation (purge ventilation) and heat (room temperature) for several days for drying.

2.4.2. Application

With brush or roller. Apply on self-contained areas with an absolutely thin coating, no overlapping and uniformly in one pass in a cross coat. Apply uniformly, smoothly and seamlessly, especially for use as a coating substrate for the AGLAIA Wall Glazing Technique, avoid grain pockets. Imperfections will become visible on glazing!

- ***Apply with brush or roller.***
  - Rollers with a uniform coating finish are suitable and efficient to use.
  - Avoid roller edges, overlapping, grain pockets and overcoating coats that have already begun to dry.
  - Cut-in edges smoothly and seamlessly, wet-on-wet, together with the main area.
  - For a brushed surface, use a BEECK Mineral Paint Brush or Oval Brush to spread without brushing in any particular direction.
- ***Coats:***
  - 1. Priming coat: Add approx. 5 – 10 % water until coatable.
  - 2. Topcoat: After at least 16 hours, unthinned or made optimally coatable with no more than 5 % water.
  - If applied carefully on uniform substrates of the same colour, one coat can suffice, e.g. for renovation coatings. To do this, mix with around 5 % water and pay attention to uniform, void-free application. An additional intermediate coat may be necessary on critical substrates, for example clay or loam; try out on a test area.
  - For wall glazing techniques it is generally advisable to apply two coats of AGLAIA Structural Casein Paint. This can be mixed as a white glaze primer, which enhances the brilliance and light reflection of the brightly coloured, watercolour-like glaze. AGLAIA Structural Casein Paint can also be mixed and tinted as a pastel colour, advisable for earthy, muted "semi-glazes".

2.5. Auxiliary products

- AGLAIA Wall Primer: for priming absorbent substrates, e.g. gypsum and clay or loam.
- AGLAIA Penetrating Primer: Consolidator for crumbly and efflorescent substrates.
- AGLAIA White Isolating Primer: barrier primer for efflorescent substrates.
- AGLAIA Natural Resin Full Colour Paints: for pastel coloured tinting.
- AGLAIA Casein Paint: casein emulsion coating without texture grain.
- AGLAIA Beeswax Glaze Binder: for the coloured AGLAIA Wall Glazing Technique.

3. Application Rate and Container Sizes

The application rate, i.e. the quantity required for smooth, normally absorbent substrates is approx. 0.15 kg per m^2 and pass. Try on a test area on site to determine substrate-related application rate differences and the number of coats required.
Container sizes: 1 kg / 6 kg / 18 kg

4. Cleaning

Thoroughly clean equipment, tools and soiled clothing with water immediately after use.

5. Storage

Stored cool and frost-free in the original container can be kept for at least 12 months. Use up opened container as soon as possible.

6. Safety Instructions

- Comply with the Safety Data Sheet. Avoid contact with skin and eyes. Repeated contact may cause allergic reactions in people who are particularly sensitive. For details of product composition refer to AGLAIA full declaration. Even natural products are not free from emissions. Ensure sufficient ventilation and heat. Do not occupy rooms until they are through-dry and all odours have dissipated. Do not breathe vapour, spray and dust. Carefully cover the area surrounding the surfaces to be coated, wash off splashes immediately with water. Keep out of the reach of children. Dispose of in accordance with the legal regulations.
- Waste code (EWC code): 080112

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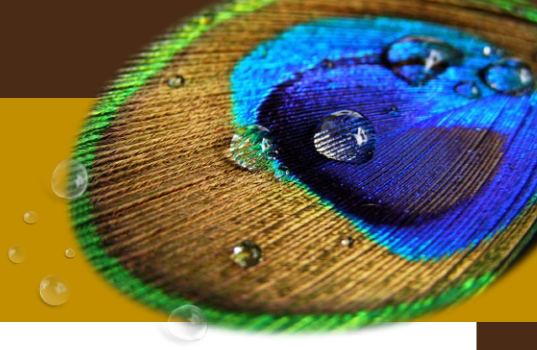

7. Declaration

This technical information is offered as advice based on our knowledge and practical experience. All information and tips are provided without guarantee and do not establish rights to make any claims of any kind whatsoever. The information provided does not release the user from their responsibility to check the product's suitability and application method for the specific substrate on which it is to be used. Subject to change without notice as part of our product development. Additives for tinting, thinning, etc. are not permitted. Check the colours before use. This information sheet becomes invalid automatically when a new edition is issued. The information in the current version of the Safety Data Sheets is binding for classification according to the Hazardous Substances Regulations, disposal, etc.

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