



# Clayworks

PRODUCT DESCRIPTION,  
PERFORMANCE &  
DATA OVERVIEW

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Overview:	<p>A premixed, pre-pigmented interior wall &amp; ceiling plaster, ready to mix with water. Apply and with traditional plastering skills and tools. 100% natural*: all compostable.</p> <p>*The majority of our Finishes are pigmented with natural, organic pigments. However, some colours contain chemical pigments – please contact us for further advice. Glazes and Primers may contain synthetics or chemicals.</p>
Supply:	25Kg bags of dried plaster. Recyclable or compostable bags.
Classic Finishes:	Smooth – Tonal – Demi Rustic – Rustic.
Custom Finishes:	Rammed earth, colour ombre, two-tone anaglyptic, corrugated, etc. For the complete list of custom finishes see our website..
Sustainability:	<p>Extremely low embodied carbon: 0.048 - 0.068 kgCO<sub>2</sub> e/kg. (LCA stages A1-A3. Full A1 - D assessment is available in our EPD).</p> <p>Product and packaging are fully compostable at all stages of lifecycle*.</p> <p>* The majority of our Finishes are pigmented with natural, organic pigments. However, some colours contain chemical pigments – please contact us for further advice. Glazes and Primers may contain synthetics or chemicals.</p>
Health:	<p>Natural, low VOCs, formaldehydes, no polymers or oils. Absorbs toxins, regulates humidity. No off-gassing. Health Product Declaration &amp; VOC Emissions Certificates.</p> <p>May contain chemical pigments. Please ask us for further advice.</p> <p>VOC emissions specifications in LEED EQ credit “Low -Emitting Materials” for LEED projects globally: The requirements of LEEDv4 and LEED v4.1 BETA (February 2021): CDPH-IAQ (California Department of Public Health (CDPH) Standard Method v1.2 – 2017); and a TVOC below 0.5 mg/m<sup>3</sup> in both office and class room.</p> <p>VOC content specifications in LEED EQ credit “Low-Emitting Materials” for LEED projects globally:</p> <p>The requirements of LEED v4 and LEED v4.1 BETA (February 2021): South Coast Air Quality Management District (SCAQMD) Rule 1113 (2016) for Trowel Applied Coatings having a VOC content below 50 g/l.</p>

Other essentials:	Clayworks Wall Primer & Clayworks Glaze (supplied by Clayworks with all clay orders plaster for additional cost).
Application:	We strongly recommend application by an approved Clayworks plasterer. Where not possible, follow our application guidelines.
Colours:	88 Standard colours. Custom colours available on request. UV resistant. Through pigmented.
Composition:	Unique blends of unfired clays mixed with natural minerals and pigments.
Substrate:	Most commonly applied directly onto gypsum plasterboard, masonry, blockwork, wood fibre board & wood wool carrier board. Can be applied directly onto gypsum backing board suitably primed. Other substrates may require a backing coat. For details please also see our separate data sheet 'Clayworks Design Details'
	Cannot be applied directly onto wood, including plywood, MDF or OSB.
Restrictions on use:	Suitable for interior walls and ceilings and fixed furniture. Appropriate for bathrooms, but not wet or shower areas. We advise against use on items that will be moved around or doors. Not suitable for floors. Clayworks supply interior waterproof finishes and exterior grade finishes where a seamless match is required.
Country of origin:	UK. Manufactured in Cornwall.
Fire:	BS 476: Part 7: 1997 Surface spread of flame: achieved Class 1 BS 476: Part 6: 1989 + A1: 2009 Fire Propagation test: fire propagation index I = 0.5, i1 = 0.0  The results confirm that the plasters fulfil the following: UK Building Regulations: Class 0 Class 0 is defined as: BS 476-7 Surface spread of flame Class 1, and BS 476-6 Fire propagation index test (I < 12, i1 < 6).  Euroclass A1 Fire Rating to EN13501 and EN15824 international standards.  Please also see our 'Clayworks Fire Certification'.
Health & safety:	As a powdered product a dust mask should always be worn when handling the product. Non Caustic.
Acoustics:	Noise Reduction Coefficient (NRC): 0.20 - 0.25 NRC depending on backing board Sound absorption Coefficient tests conducted in accordance with British Standard BS EN ISO 354 available.
Maintenance:	Can be wiped clean with a non-toxic cleaner when glazed. Seamless. Easily repaired. Fixtures, fittings, wall hangings as per any other plaster.
Drying times:	2-3 hours each layer, depending on temperature & humidity.
Impact:	BS EN 520 – Impact Diameter < 15mm.



Moisture buffer value: 1.28 [calculated by moisture change (g/m<sup>2</sup>) divided by relative humidity] where buffering was tested to be 9x that of painted plasterboard. (University of Bath figures).

Light reflective value: Tested to BS.8493:2008+A1:2010. Data available on request.

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DATA COMPARISON:	SMOOTH / TONAL	DEMI-RUSTIC	RUSTIC
Coverage per 25kg bag	7 – 8 m <sup>2</sup>	2.6 m <sup>2</sup>	1.5 m <sup>2</sup>
Thickness	2mm	4-5mm	6-7mm
Moisture absorption value	1.28	1.4	1.4
Density: loose powder	1137.581 (low g/L) – 1573.407 (high g/L)	1132.042 (low g/L) – 1506.464 (high g/L)	1240.536 (low g/L) – 1581.256 (high g/L)
Density: Applied kg/m <sup>3</sup>	1270	1682	1536
Density: Applied kg/m <sup>2</sup>	2.5	10.1	15.4
Impact BS EN 520.	Impact Diameter <15mm	Impact Diameter <15mm	Impact Diameter <15mm
Thermal conductivity	0.84 W/mK	0.97 W/mK	0.97 W/mK
VOCs	ZERO	ZERO	ZERO
Acoustic absorption properties – sound absorption coefficient	0.10	0.20	0.25

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Tools for the job: The tools needed to apply all Clayworks clay plasters are essentially the same as for any other plastering job:

- Hawk
- Laying on trowel
- Detail trowels
- Plastic polishing trowel
- Fine mist sprayer
- Clean buckets for mixing
- Clean water
- Hand held plasterer's whisk
- Sponges
- Masking tape
- Protective sheeting
- Appropriate respiratory protection.
- Specialist Japanese Rectangular trowels (essential for polishing/finishing)
- Plastic trowels (for polishing/application of glaze) For large projects, spray application is also possible.

Hanging pictures: Observe the same protocol as for conventional plaster using picture hooks or screws.

Repairs: Any damage caused to a Clayworks surface will be inconspicuous due to their through bodied colouring. Chips, divots and scratches can be simply repaired through the addition of a small quantity of colour matched clay plaster, trowelling and reapplication of the protective glaze.

FUNDAMENTAL MATERIAL SAFETY Clayworks clay plasters contain no asbestos, lead, PCBs or mercury. They contribute to toxic material reduction targets because they contain no perfluorinated compounds (PFCs), no flame retardants or phthalates (plasticisers), or isocyanate based polyurethanes. Clayworks clay plasters contain no synthetic additions and emit zero VOCs or formaldehydes. There is evidence to suggest they may proactively mitigate the presence of formaldehydes in a space.

THERMAL PROPERTIES OF CLAYWORKS CLAY PLASTERS According to research by Tom Morton et al, the physical mass of clay plaster ( $20.6 \text{ kg/m}^2$ ) is 2.5 times that of gypsum plaster ( $8 \text{ kg/m}^2$ ).

Data sheet: September 2023



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