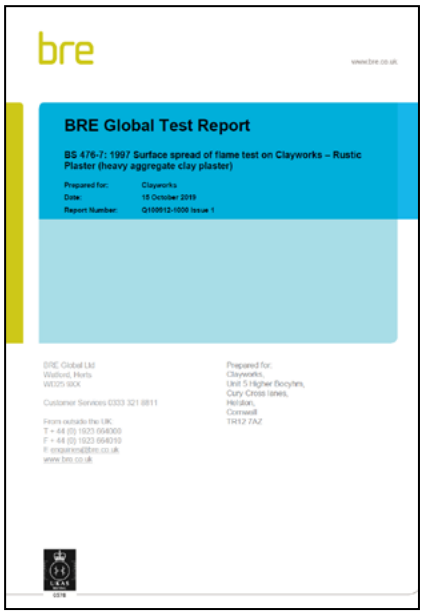
Clayworks

Clayworks Certificates & Verifications

For LEED | BREAM | WELL | LOW CARBON BUILDING

Natural Clay Plasters



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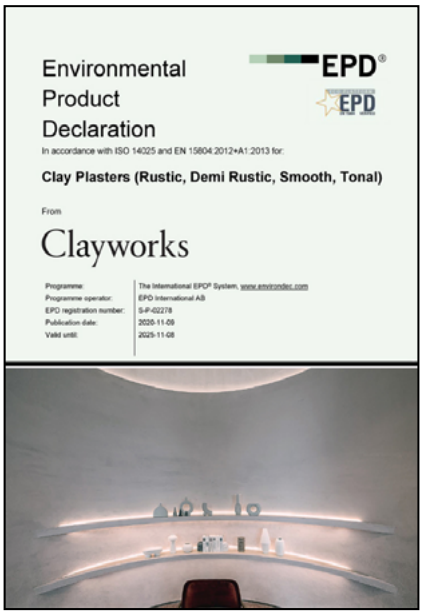

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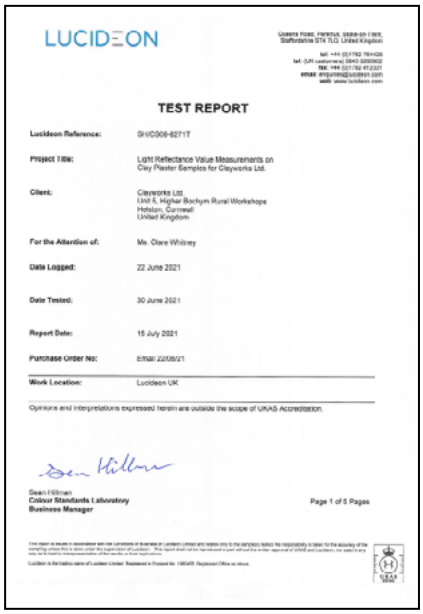

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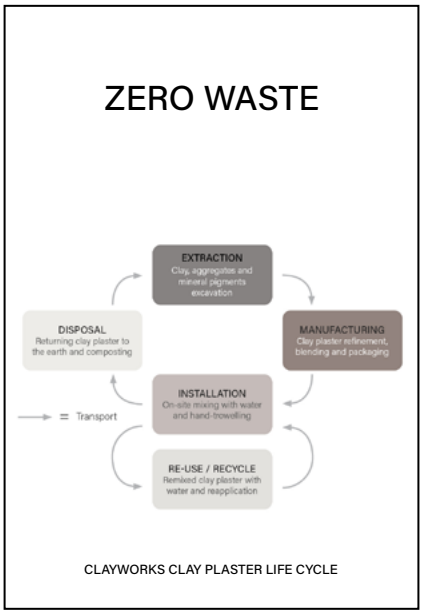

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CLAYWORKS AND LEED

Leadership in Energy and Environmental Design (LEED)

is a Green Building Certification program used worldwide.
It has been developed by the US Green Building Council.

LEED (and also BREEAM and WELL) promotes a rigorous focus on material selection, human comfort, air quality and human health features of a building rightly prioritises the most important asset of the building: human beings.

Clayworks clay plasters contribute towards LEED credits in 2 primary ways:

- **Health & Wellbeing:**

  Clayworks Clay Plasters are naturally healthy,
  100% natural geological materials that are inherently non-emitting.
  Clayworks product specification tools include:

  - **Health Product Declaration**
  - **Low Emission Certificates**
  - **Light Reflectance Value Tests**
  - **Acoustic Test Values**

- **Materials & Sustainability:**

  - **Environmental Product Declaration**,
    including a full **Cradle to Cradle**
    Life Cycle Assessment.

Health and Wellbeing

This category encourages the increased comfort, health and safety of building occupants, visitors and others within the vicinity. Issues in this section aim to enhance the quality of life in buildings by recognising those that encourage a healthy and safe internal and external environment for occupants.

STANDARD	LEED DESCRIPTION	HOW CLAYWORKS HELPS	EVIDENCE
Visual Comfort	The potential for disabling glare has been designed out of all relevant building areas.	Clay plasters naturally absorb glare with a non reflective surface.	Aesthetic. LRV CERTIFICATES Tested to BS.8493:2008+A1:2010 Available on request.
Minimum Indoor Air Quality Performance Low Emitting Materials	Minimising sources of air pollution through careful design, specification and planning.	Inherently non-emitting because it is a geological product. No Asbsestos No Formaldehyde No VOCs No PCBs No Flame Retardants No chemicals or synthetics.	LOW EMISSIONS CERTIFICATES HEALTH PRODUCT DECLARATION
Acoustic Performance	The building meets appropriate acoustic performance standards and testing requirements in terms of: Sound insulation; Indoor ambient noise levels; Reverberation times	Clay has excellent sound absorption properties.	Acoustic absorption: 0.10 (Smooth) 0.20 Demi-Rustic) 0.25 (Rustic) sound absorption. Coefficient tests conducted in accordance with British Standard BS EN ISO 354 available
Thermal Comfort		Clayworks Demi-Rustic and Rustic Finishes have high thermal mass	Clayworks Data Sheet

Materials

This category encourages decisions which reduce the environmental and social impact of construction products used on a project. It takes a 'whole life cycle' approach to construction product impacts, encouraging consideration of impacts during manufacture, design, procurement, installation, in-use and end-of-life. The issue focuses on construction product efficiency, environmental impact, responsible sourcing and product durability.

STANDARD	LEED DESCRIPTION	HOW CLAYWORKS HELPS	EVIDENCE
Materials and Resources	Buildings' environmental life cycle reduction. Building Product Disclosure and Optimisation Waste Management Environmental Product Declarations	Life Cycle Assessment EPD Clayworks is compostable on site.	EPD
Environmental impacts from construction products - Environmental Product Declarations (EPD)	Storage and collection of Recyclables	Environmental Product Declaration	EPD
Designing for durability and resilience	Increasing the lifespan of the building through designing for dura bility and protection from degradation and specifying appropriate construction products.	Clayworks Clay Plasters are naturally pigmented: they never require painting. Traditional clay plasters are known to last for hundreds of years.	
Material efficiency	Encouraging the reduction of environ-mental impacts through optimising the use of materials during all stages of the project.	Clayworks Clay Plasters are sold by the square meter, which means there is no excess materials or cut offs. Any left over material can be kept for repairs. Hence there is no waste.	Zero Waste Circular Economy

Management

STANDARD	LEED DESCRIPTION	HOW CLAYWORKS HELPS	EVIDENCE
Man 02 Life Cycle Cost and Service Life Planning	Promoting the business case for sustainable buildings through the enhanced under-standing of capital cost.	LCA and EPD	EPD
	Improving design, specification, maintenance and operation, by encouraging the use of life cycle costing.		

Energy

STANDARD	LEED DESCRIPTION	HOW CLAYWORKS HELPS	EVIDENCE
Ene 01 Reduction of energy use and carbon emissions	Encouraging the design of energy efficient buildings with energy performance above national building regula-tions. Encouraging the accurate modelling of operational energy consumption.	Moisture buffering benefits of clay has direct and indirect effects on the energy use in buildings. As a direct efect, in winter, it may reduce heating energy consumption due to the latent heat generated by hygroscopic materials when absorbing moisture from the air. In summer, hygroscopic materials reduce the use of energy to cool the room as they keep the humidity lower and decrease the room enthalpy. The results can be improved if good temperature and ventilation control strategies are also applied. Indeed, it may be possible to reduce heating and cooling energy consumption by up to 5% and 30%, respec-tively, when applying materials clay plasters with well-con-trolled HVAC systems.	http://umanitoba.ca/faculties/engineering/departments/ce2p2e/pdf/moisture15.pdf EPD
Low Carbon Design	Reducing the building's energy consumption through the adoption of passive design solutions, free cooling and low or zero carbon (LZC) energy sources.		

Waste

This section encourages the reduction of waste from construction and throughout the lifetime of the building. It rewards sustainable waste management, as well as waste reporting, reduction and diversion from landfill during construction, but also encourages sustainable practices during the building operation.

STANDARD	LEED DESCRIPTION	HOW CLAYWORKS HELPS	EVIDENCE
Construction waste management	Improving resource efficiency through developing a pre-demolition audit and a Resource Management Plan, maximising the recovery of material during demolition and diverting non-hazardous waste from landfill.	All Clayworks Clay Plasters are compostable, including the brown paper packaging.	EPD All products are compostable at all stages of life cycle: Zero Waste
Design for disassembly and adaptability	Encouraging consideration and implementation of measures design options related to adaptability and disassembly, which can accommodate future changes to the use of the building and its systems over its lifespan.	If Clayworks Clay Plasters are applied to natural, compostable backing boards, they are wholly compostable if building is disassembled.	Clayworks Sustainability Document

Clayworks

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