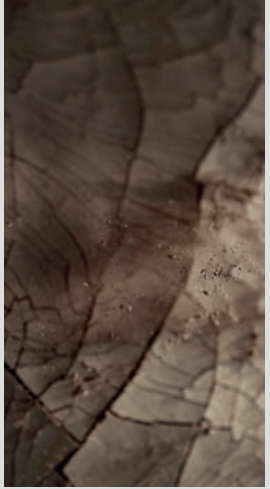

CLAY FOAM
Insulation



Clay Foam Insulation for sustainable renovation

Clay foam is a mineral-based insulation which has been developed specifically for the energy-efficient renovation of double-leaf masonry. The foam is continuously produced on site from three waterbased components and air.

Due to its high mineral content, clay foam is non-combustible, low in emissions, water-repellent, and at the same time vapor permeable. This keeps the masonry breathable and optimizes living comfort.

The unique combination of product features makes clay foam an innovative and sustainable solution for excellent insulation throughout its entire life cycle.

Cleanly processable
The water-based components can be transported in a space-saving manner and allow for easy and clean work on the construction site – completely dust and fiber-free.

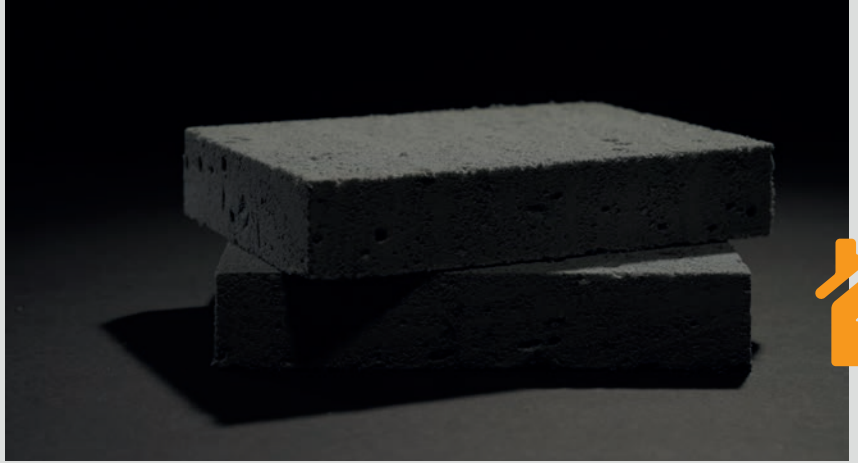
Space-saving
Physical foaming with air creates a foam that exceeds the original volume tenfold.
foam factor 1:10

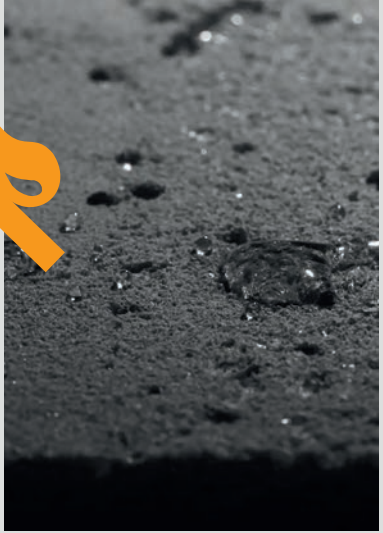
Conservatively applicable
The fresh foam is injected into the cavity through small drilling holes.
Drill hole diameter: approx. 12 mm

Non-expanding
After injection, the foam does not expand further or generate additional pressure on the masonry.

Gap-filling
Clay foam has excellent flow properties and perfectly adapts to the contours within the cavity. The foam fully surrounds installations and tight areas, including mortar protrusions and anchors. Clay Foam is self-sealing: The foam effectively seals even small holes or cracks in masonry and prevents draughts. No preliminary work or reworking is necessary.
< 120 sec setting time

- cleanly processable
- vapor permeable
- sustainable
- space-saving
- conservatively applicable
- gap-filling
- not selfexpanding
- durable
- insulating
- safe
- water-repellant
- sound-absorbing
- non-combustible
- fast
- economic





Insulating
Clay foam has outstanding insulating properties.
λ_N = 0,034 W/m•K
thermal conductivity (DIN EN 12667)

Sound-absorbing
Ambient noise is noticeably reduced using this open-cell foam insulation.
Rw = 14 dB sound reduction index
(according to DIN EN ISO 10140-2)

Water-repellant
Despite its open-cell structure, clay foam is hydrophobic and does not absorb liquid water.
wlp < 1 kg/m² water absorption
(according to DIN EN 12087)

Vapor permeable
Clay foam is open to vapour diffusion. It can absorb and release moisture, thereby helping to regulate the indoor climate.
Vapor Permeability μ = 3

Non-combustible

With a content of 90% mineral components, dried clay foam is non-combustible - without the use of additional flame retardants.

Material classification A2-s1, d0 (DIN EN 13501-1)

Recyclable

During dismantling, clay foam can be easily disposed of with construction waste or reused as sub-base material.

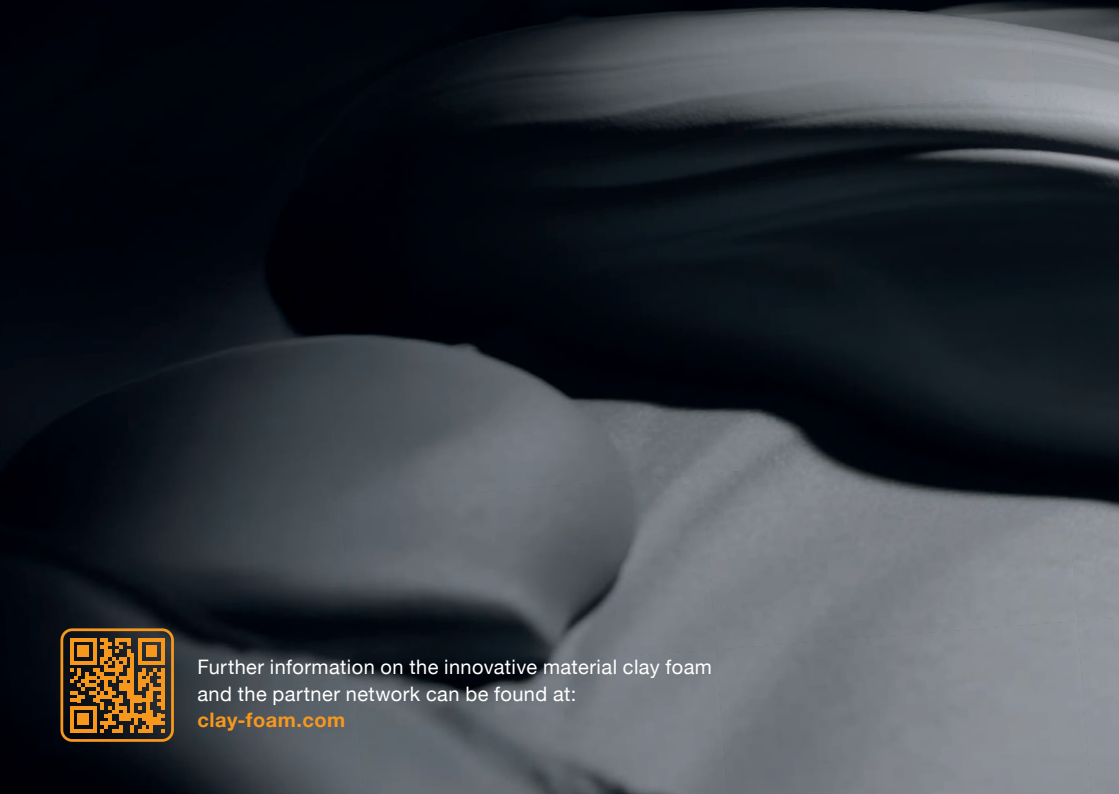
Safe

Clay foam consists of harmless raw materials and is classified as a “very low-emission building material” EC1 PLUS according to GEV-EMICODE® standards.

Economical

The cavity wall insulation with clay foam increases the building‘s energy efficiency, which can lead to significant cost savings.

Notes



Further information on the innovative material clay foam
and the partner network can be found at:
clay-foam.com