

LOKO

Mineral admixture
for stabilised compressed
earth blocks



Product Data Sheet

Quick Overview

Loko is an admixture specifically designed to increase the strength and the water resistance of compressed earth blocks, without the use of cement or a firing process. It is a blend of non-toxic mineral powders forming a dispersant and a coagulant. The dispersant deflocculates and re-arranges the clay particles in the earth to make the material processable, while the coagulant allows the agglomeration of the clayey materials. The admixture stabilizes the earth through a pozzolanic process.

Product Description

Applications

This admixture can be used to produce compressed earth blocks that can be applied for:

- structural and non-structural indoor walls
- non-structural walls for facade applications

Characteristics

- Reduction of water required for processing
- Increase of compressive strength and of water stability
- Facilitates the re-use of excavation waste for compressed earth blocks
- No cement or firing required for compressed earth block production
- Non-toxic and non-hazardous according to GHS (Globally Harmonized System)
- Registered in the Chemicals Ordinance (ChemO) in Switzerland

Dosage

Typical dosages are in the range of 2-4% per total dry mass. The dosage depends on the targeted performances. To ensure full compatibility with the clay and to optimise material performance, contact must be made with our Technical Service Department.

Mixing

Loko is a powder that should be added to the earth during a mixing process. To ensure an optimised mixing process, please contact our Technical Service Department.

Environmental Data¹

For 1 kg of Loko:

Global Warming Potential (GWP)	0.379 kg CO ₂ -eq
Environmental impact score (UBP)	789 UBP
Energy demand, grey energy	1.004 kWh oil-eq

¹The Life Cycle Assessment (LCA) encompasses the production including manufacturing, packaging and transportation of the raw materials, processing and packaging of the end product as well as the disposal of the end product in accordance with the rules of the KBOB recommendation. The assessment is based on life cycle inventories from the UVEK Ökobilanzdatenbestand DQRv2:2022 (UVEK database), aligned with the latest KBOB list.

Product Information

Physical properties

Appearance/Colour	White powder
Bulk density	1.1 ± 0.1 g/cm ³
Specific density	2.85 ± 0.03 g/cm ³
Sieve undersize (125 µm)	> 90 %
Moisture content	0.17 ± 0.04 %

General information

Production location	Switzerland
Packaging	Bag: 25 kg / Big Bag: 1000 kg
Shelf life	6 months from date of production.
Storage	Store in cool and dry environment. Prevent uptake of humidity.

Health and safety information

Avoid dust formation. Use in places with adequate ventilation. Avoid breathing dust. Use personal protective equipment. Consult the Material Safety Data Sheet (MSDS) for exposure limits. Dispose of contents/container in accordance with local regulations.

Disclaimer

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