



Description

Moulded Earth Block made from unpolluted, undisturbed soil.

Circularity

±50-70% secondary resources
100% Closed Loop Recycling
100% Reusable

Manufacturer

Vande Moortel in Oudenaarde, Belgium

Product

Composition

- Alluvial Scheldt clay
- Loess loam from excavated urban sites (mineral waste stream)
- Baked brick waste (mineral waste stream)



Alluvial Scheldt Clay



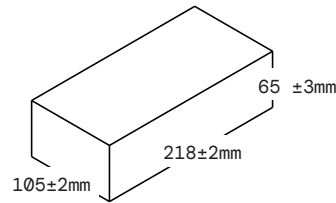
Loess Loam



Baked Brick Waste

☰ Designation

BTM – CL3 – RC 5 – Mv 1,8 – 6,5x10,5x21,8 – XP P 13-901
 Lehmstein (LS) – tragend – DIN 18945 – f 3 – II – 1,8 – 6,5x10,5x21,8



MEB-b

📐 Physical properties of blocks

Density	1710 kg/m ³	EN772-13
Compressive strength	4 N/mm ²	EN772-01
Equilibrium Moisture Content	TBC Q4 2023	EN772-10
Initial Water Absorption	TBC Q4 2023	EN772-11
Hygrometric Expansion	TBC Q4 2023	EN772-14 Modified
Compressive strength (halfblocks mortared)	3 N/mm ²	DIN 18945 XPP13-901
Static E-modulus	750 N/mm ²	DIN 18945
Application Class	II = CL3 (Interior insulated masonry)	DIN 18945 XPP13-901
Water vapor diffusion number μ	5/10	DIN 18945 XPP13-901
Thermal conductivity λ	0,9 W/m ² K	DIN 18945 XPP13-901
Fire Reaction	A1 (Non-flammable)	DIN 18945
Water Adsorption	TBC Q4 2023	DIN 18945
Global Warming Potential	TBC Q4 2023	DIN 18945 EN15804:A2
Environmental Impact (LCA)	TBC Q4 2023	DIN 18945 EN15804:A2
Abrasion Categoric	ab 3	XPP13-901
Moisture Buffer Value	2,2 - 3	
VOC-emissions	VOC-free	

Physical properties of masonry

Possible mortars:	Leem Mortar (10mm)	Leem Adhesive Mortar (2-3mm)	
Compressive Strength	TBC Q4 2023	TBC Q4 2023	EN1052-1
Static E-modulus	TBC Q4 2023	TBC Q4 2023	EN1052-1
Flexural Strength	TBC Q4 2023	TBC Q4 2023	EN1052-2
Initial Shear Strength	TBC Q4 2023	TBC Q4 2023	EN1052-3
Bond Wrench Strength	TBC Q4 2023	TBC Q4 2023	EN1052-5
Airborne Sound Insulation	TBC Q4 2023	TBC Q4 2023	EN ISO 717-1
Fire Resistance	TBC Q4 2023	TBC Q4 2023	EN13501
Specific Heat Capacity	1000 J/kgK	1000 J/kgK	
Thermal Effusivity	13,86 m ² /s	13,86 m ² /s	
Thermal Diffusivity	0,23 Wh ^{0,5} /(m ² K)	0,23 Wh ^{0,5} /(m ² K)	
°T Amplitude Attenuation	TBC Q4 2023	TBC Q4 2023	
Phase Shifting	TBC Q4 2023	TBC Q4 2023	

Shelf life

Can be kept indefinitely when dry.

Packaging

Plastic wrapped pallet 108x108 cm with deposit. 1632 kg/palet.

Usage

640 pc/palet

1 palet = 10,85 m² of masonry with 10mm joints or 9,55 m² with 3mm joints

1 m² of masonry = 59 pc with 10mm joints and 67 pc with 3mm joints

Field of application






For masonry protected and insulated from the elements. Suitable for damp rooms, do not apply in areas of direct contact with water. See our Earth Block Guide for conception and execution guidelines.

Suitable for load-bearing walls if DIN18940 is followed: contact BC materials.

Characteristics

Circular material in origin: Valorization of a "waste" stream
 Circular material in destination: infinitely reusable
 CO2 neutral: no combustion required to produce the building material
 Made of undisturbed, unpolluted soil
 Moisture and heat regulating
 Vapor-open
 Anti-static
 Reduces acoustic transmission and reverberation
 Colorstable
 Non-flammable and fire-resistant

Execution

 Storage	Store in a dry place, lifted from the ground, on a flat surface, stack maximum 2 pallets, move without jarring.
 Conditions	Upon execution, the temperature of the air and substrate should be minimum 5°C.
 Application	The rules of craftsmanship are carefully followed when mortaring the earth blocks. Please check Earth Block Guide by Léém for conception and execution guidelines. Mix minimum 6 pallets when masonry, prewet blocks before laying, use a rubber hammer to put in place, protect fresh masonry walls from rain and capillary water.
 Drying time	Under normal conditions (20°C and 60% relative humidity), the masonry wall will dry in 28 days.
 Tools	Rubber hammer, Léém Adhesive Mortar Spreader Box/Trowel, standard masonry tools.

Legislation

 Conformity	Complies with Brussels Soil Ordinance and Decree March 29, 2018. Complies with Flemish Soil and Materials Decree and (VLAREMA and VLAREBO). Tested on 40+ parameters of pollution: Non-polluted resources.
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Disclaimer

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