

CLAY CONSTRUCTION SYSTEMS

ECOLOGICAL AND SUSTAINABLE CONSTRUCTION AND RENOVATION



Picture: buero-magma.at

**BUILDING
INNOVATIONS**



**LEIPFINGER
BADER**



Picture: buero-magma.at

STRONG ALONE STRONGER TOGETHER

Whether new construction or renovation, LEIPFINGER-BADER offers integrated system solutions for the sustainable present and future of construction.

CLAY BLOCK SYSTEMS

- SILVACOR & CORISO
- Ring beam formwork
- Column formwork
- Stop end formwork
- Roller shutter and Venetian blind boxes

MODULAR CONSTRUCTION SYSTEMS

- Solutions for serial and modular construction

VENTILATION SYSTEMS

- The decentralised ventilation system integrated in the roller shutter casings or Venetian blind boxes

FACADE SYSTEMS

- TONALITY®
- Renovation solutions for ETICS

FLOOR SLAB SYSTEMS

- TONALITY®
- Timber earth floor slab and reinforced brick concrete slab

FLOORING SYSTEMS

- Screed replacement tiles
- Design screed replacement tiles

CLAY CONSTRUCTION SYSTEMS

- Clay panels
- Clay plaster
- Clay paints

CRADLE TO CRADLE

- Recycling
- Unfired bricks
- Brick aggregate for green roofs



As one of the leading providers of energy-efficient and sustainable system solutions in construction, we manufacture ecologically valuable clay products that have served humankind for millennia. Since the beginning of our corporate history, the sustainable handling of natural resources has been at the heart of everything we do. We believe that sustainability starts with resource-efficient material extraction from our own pits and energy-efficient processing of the natural material into premium-quality products.

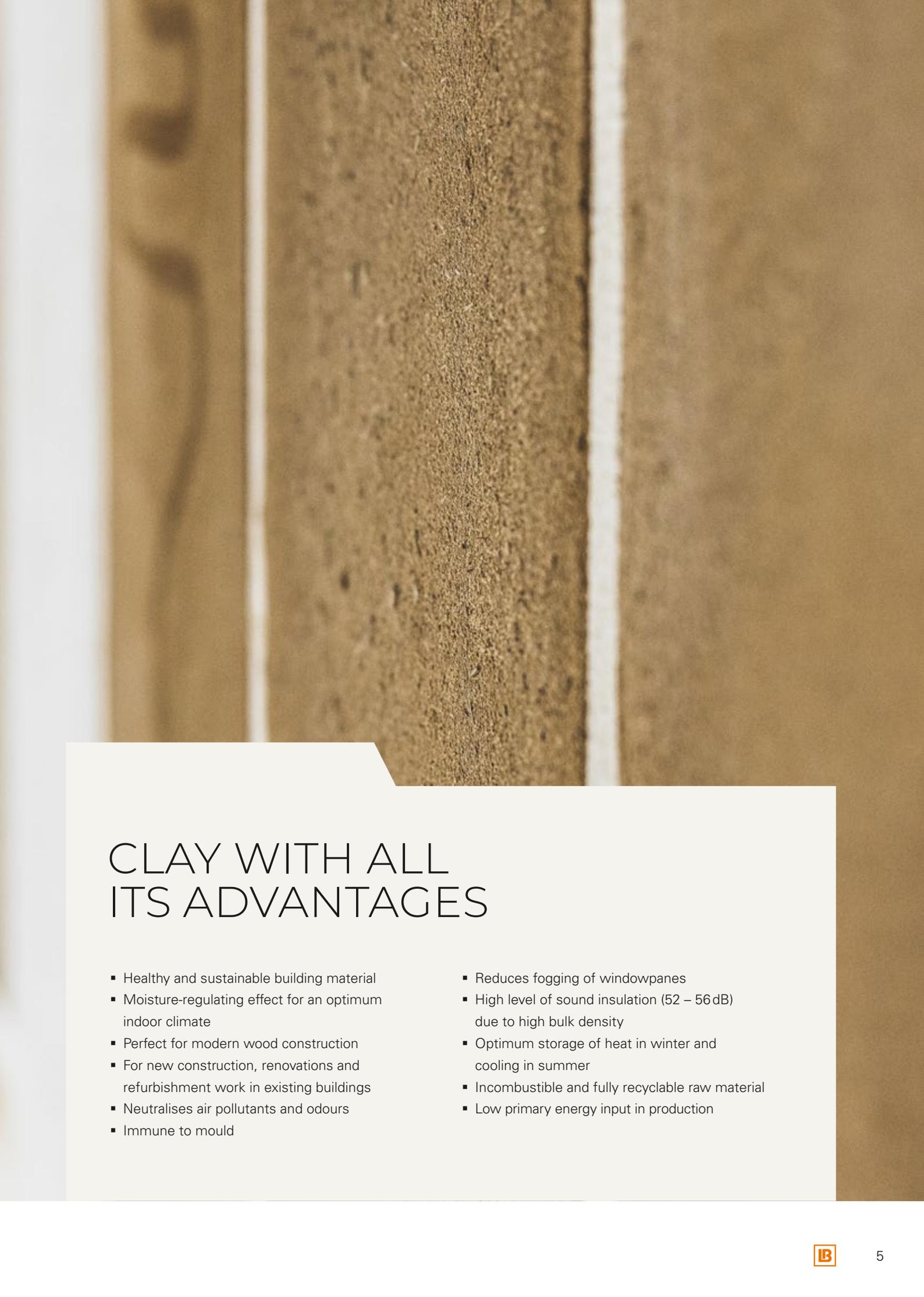
A HOLISTIC APPROACH TO CONSTRUCTION

Our product range comprises solid clay bricks with integrated sound and thermal insulation, recycled products, such as unfired bricks made from recycled building material, prefabricated brick components for serial and modular construction as well as intelligent ventilation systems with heat recovery. In addition, we manufacture and sell high-quality ceramics for rear-ventilated curtain facades and offer an energy-efficient dry screed system. Our clay (climate) panels for interior construction as well as our clay plasters, paints and primers are true game changers when it comes to renovation in a wide range of different construction projects.

Such innovations are the key to meeting challenges in construction quickly and efficiently. Therefore, we attach great importance to continuously improving our systems, products and procedures. The clay construction industry is still relatively small. But we are convinced that glass, concrete and steel structures will be superseded by sustainable brick and clay structures in the near future. We work towards achieving this goal every day.

Thomas Bader

Owner and Managing Director of
the LEIPFINGER-BADER Group



CLAY WITH ALL ITS ADVANTAGES

- Healthy and sustainable building material
- Moisture-regulating effect for an optimum indoor climate
- Perfect for modern wood construction
- For new construction, renovations and refurbishment work in existing buildings
- Neutralises air pollutants and odours
- Immune to mould
- Reduces fogging of windowpanes
- High level of sound insulation (52 – 56dB) due to high bulk density
- Optimum storage of heat in winter and cooling in summer
- Incombustible and fully recyclable raw material
- Low primary energy input in production

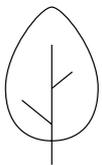


Picture: buero-magma.at

CLAY CONSTRUCTION SYSTEMS

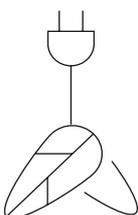
Using exclusively natural and healthy materials should be a given, especially in buildings and facilities where people spend a lot of time. The natural building materials contained in the products of clay construction systems create a healthy living and working environment.

CLAY CONSTRUCTION SYSTEMS – THE GREEN SOLUTION FOR ECOLOGICAL INTERIOR CONSTRUCTION WITH ITS ADVANTAGES:



RESOURCE-EFFICIENT

Clay is infinitely available and is mined regionally in small clay pits. Short supply routes protect the environment.



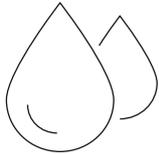
ECOLOGICAL / RECYCLABLE

Low primary energy input in production. The conditioning and processing of clay requires only little energy. By comparison: The production of concrete requires about 100 times as much energy. Clay is fully recyclable and compostable. Clay even makes a good garden soil.



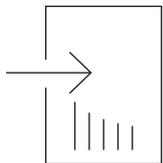
FIRE PROTECTION

As a class-A1 building material, clay panels are classified as incombustible and tested according to DIN EN 13501-1.



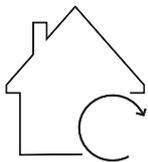
MOISTURE REGULATION

Clay has a natural moisture-regulating effect, contributing to maintaining a constant air humidity in the building. It is therefore particularly beneficial for wood construction and half-timbered houses.



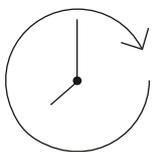
INSULATION

Clay panels offer good thermal and sound insulation, reduce heating and cooling costs and are an ecological alternative to synthetic insulation materials.



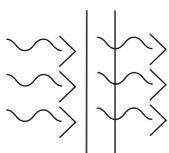
HEALTHY INDOOR CLIMATE

Natural materials in clay panels have a positive effect on the indoor climate and can absorb harmful substances.



DURABILITY

Clay removes excess moisture from straw and wood, ensuring long-term preservation. It is therefore particularly beneficial for wood construction and half-timbered houses.



THERMAL STABILITY

Clay has a natural heat and cold storage capacity, contributing to maintaining a constant indoor temperature, thereby increasing living comfort.



Picture: buero-magma.at

STRUCTURE

BRICK SUBSTRATE



1. Universal undercoat plaster with mesh
2. Clay topcoat plaster
3. Clay paint

SOLID WOOD SUBSTRATE



1. Clay panel
2. Clay adhesive with mesh
3. Clay topcoat plaster / fine-finish plaster
4. Clay paint

SOLID WOOD SUBSTRATE WITH REED PLASTER BASE



1. Reed plaster base
2. Universal clay undercoat plaster with mesh
3. Clay topcoat plaster
4. Clay paint

SOLID WOOD SUBSTRATE WITH INTEGRATED CLAY CLIMATE COMPONENT



1. Solid wood substrate
2. Clay climate component
3. Reinforcing layer of clay adhesive and mesh
4. Clay topcoat plaster
5. Clay paint



Picture: Homerun GmbH

CLAY DRYWALL PRODUCTS



CLAY PANEL

Modern and ecological drywall construction for more sustainability in construction. Clay panels are used in all areas of interior drywall construction. The areas of application include interior construction, interior wall panelling, wooden and metal frameworks, facing formwork, attic conversion for new construction, renovation, municipal and public buildings, commercial properties, industry or private homes.

FIRE BEHAVIOUR A1

(incombustible) DIN EN 13501-1

SPECIFIC HEAT CAPACITY c_p

approx. 1.0 kJ/kgK

THERMAL CONDUCTIVITY λ

approx. 0.353 W/mK

BULK DENSITY ρ

approx. 1,450 kg/m³

CLAY PANELS

Art. no.	Designation	Thickness in mm	Length x width in mm	m ² /panel	kg/panel	Pcs/pallet	m ² /pallet
20006	Clay panel (CP)	16	1250 x 625	0.78	18	60	46.86m ²
20007	Clay panel (CP)	22	1250 x 625	0.78	25	40	31.20m ²



STRAW PANEL

Straw panels are created by compressing loose straw. The plaster base panels are produced by applying pressure, heat and binding agents (ecological adhesive). Straw panels offer a number of advantages:

- Straw is a renewable resource
- Straw is grown in a resource-efficient manner
- Straw has excellent insulating properties and offers a high level of thermal insulation, making it possible to compensate temperature variations
- High level of sound insulation
- Straw is a natural material and does not contain any toxic or harmful substances
- Easy to process

FIRE BEHAVIOUR E

(normal combustible) DIN EN 13501-1

THERMAL CONDUCTIVITY λ

approx. 0.069 W/mK

BULK DENSITY ρ

approx. 220 kg/m³

STRAW PANELS

Art. no.	Designation	Thickness in mm	Length x Width in mm	m ² /panel	kg/panel	Pcs/pallet	m ² /pallet
20301	Straw panel	22	2500 x 1250	3.12	15.17	45	140.85
20305	Straw panel	22	1250 x 625	0.78	3.78	45	35.16
20302	Straw panel	40	2500 x 1250	3.12	27.53	25	78.25
20306	Straw panel	40	1250 x 625	0.78	6.86	25	19.53

ACCESSORIES FOR CLAY PANELS / STRAW PANELS

FASTENING

Art. no.	Designation	Additional information
40500	Retaining washers (Fischer HV36)	100 pcs / pack
40510	Torx stainless steel screws 5 x 35	200 pcs / pack; for CP 16mm
40511	Torx stainless steel screws 5 x 50	200 pcs / pack; for CP 22mm and straw panel 22 mm
40679	Lemix® clay board screws 5 x 60	100 pcs / pack; for CP 16mm, CP 22 mm and straw panel 22 mm

COATING / REINFORCING LAYER ABOVE CLAY PANELS / STRAW PANELS

For technical reasons, an all-over reinforcing layer is installed above the panel layers.

COATING/REINFORCING LAYER

Art. no.	Designation	Additional information
40104	Reinforcing mesh glass fibre	110 g/m ² , 7 x 7 mm mesh, 1 roll of 50 lm., roll width 1 m
30317	Clay adhesive and reinforcing mortar	25 kg, (42 bags/pallet), yield 5 m ² at 3 mm

Further coating and finish above the reinforcing layer:

- Clay fine-finish plaster and clay paint with primer (see page 19)
- Coloured clay facing plaster (see page 16)

CLAY DRYWALL SYSTEM WITH CLIMATE COMPONENT

In the version as clay climate component with integrated pipe systems, clay panels are suitable for heating and cooling walls and ceilings. They can be used for interior walls and facing formwork as well as in new construction, renovation and conservation of listed buildings.



CLAY CLIMATE COMPONENT HYDRONIC SYSTEM

The hydronic clay climate panel is a true powerhouse that is capable of both heating and cooling while saving energy and being a blessing for your body. The radiant heat generated prevents dispersion of particulate matter and mould growth and is considered to be particularly effective, because the pleasant radiant heat is also released to the other walls, the floor and objects in the room. When used for cooling, overhead installation is recommended.

The wall-mounted heating systems are also available as an electrical version. Heating capacity 250 W/panel: 22 mm x 625 mm x 1250 mm approx. 23 kg/panel

FIRE BEHAVIOUR A1

(incombustible) acc. to DIN EN13501-1

HEATING CAPACITY

depending on flow / return flow temperature from 60 W/m² to 125 W/m²; cooling capacity from 30 W/m² to 60 W/m²

BULK DENSITY ρ

approx. 1,450 kg/m³

CLAY CLIMATE COMPONENT – HYDRONIC SYSTEM

Art. no.	Designation	Thickness in mm	Length x width in mm	m ² /panel	kg/panel	Pcs/pallet	m ² /pallet
20104	Climate end module 125	22	1250 x 625	0.78	24	40	31.20
20105	Climate connection module 125	22	1250 x 625	0.78	24	40	31.20
20103	Climate end module 62.5	22	625 x 625	0.39	12.5	40	15.60

For technical reasons, an all-over reinforcing layer is installed above the panel layers.



CLAY CLIMATE COMPONENT ELECTRICAL HEATING SYSTEM

NOT SUITABLE FOR FASTENING TO METAL SUBSTRUCTURES!

CLAY CLIMATE COMPONENT – ELECTRICAL HEATING SYSTEM

Art. no.	Designation	Thickness in mm	Length x width in mm	m ² /panel	kg/panel	Pcs/pallet	m ² /pallet
20201	LHE22 Heizelement 250 W	22	1250 x 625	0.78	23	40	31.20



Picture: buero-magma.at

ACCESSORIES FOR CLIMATE COMPONENTS / ELECTRICAL HEATING ELEMENTS

FASTENING

Art. no.	Designation	Additional information
40500	Retaining washers (Fischer HV36)	100 pcs / pack
40511	Torx stainless steel screws 5 x 50	200 pcs / pack

CONNECTORS FOR CLIMATE COMPONENTS

Art. no.	Designation	Additional information
40301	PE-RT-multi-layer composite pipe Ultraline AL	OD: 14 mm, 200lm
40302	Brass connector	14 mm
40305	PVDF sleeve 14	50 pcs / pack
40303	Brass screw connection with sliding sleeve – IT	14 G3/4"
40306	Brass elbow 90° 14 / 14	
40315	Toolbox for sale / hire	

TRANSFORMERS FOR CLAY HEATING ELEMENTS

Art. no.	Designation	Additional information
40312	Transformer 250 W	for 1 CHE 22
40313	Transformer 500 W	for 2 CHE 22

ACCESSORIES FOR CLIMATE COMPONENTS / ELECTRICAL HEATING ELEMENTS

FOR TECHNICAL REASONS, AN ALL-OVER REINFORCING LAYER IS INSTALLED ABOVE THE PANEL LAYERS.

COATING / REINFORCING LAYER ABOVE CLAY CLIMATE COMPONENTS / ELECTRICAL CLAY HEATING ELEMENTS		
Art. no.	Designation	Additional information
40104	Reinforcing mesh glass fibre	110g /m ² , 7 x 7mm mesh, 1 roll of 50 lm., roll width 1 m
30317	Clay adhesive and reinforcing mortar	25 kg, (42 bags / pallet), yield 5m ² at 3mm

Further coating and finish above the reinforcing layer:

- Clay fine-finish plaster and clay paint with primer (see page 19)
- Coloured clay facing plaster (see page 16)

ACCESSORY PRODUCTS FOR DRYWALL SYSTEMS

ACCESSORY PRODUCTS FOR DRYWALL SYSTEMS		
Art. no.	Designation	Additional information
40311	Clay panel transport aid	
40310	Clay anchor	For fastening cavity wall boxes in clay panels, 50 pcs
30319	Clay joint filler	Natural light, 100 lm joint line 0.5 x 0.5cm powder, 1.5 kg bag
40316	Expansion joint tape	For separating panel layers, roll of 25 lm
40317	Expansion joint profile	Three-piece with mesh, for 6mm plaster thickness, 3m length
40318	Mesh corner profile	Rigid PVC profile glass-fibre mesh 8 x 12 cm, 2.50m length, 100 pcs / box
40319	Plaster end profile	3mm rigid PVC profile with mesh, 2m length, 25 pcs / bundle
40320	Plaster end profile	6mm, 2m length, 25 pcs / bundle



Picture: buero-magma.at



CLAY PLASTER

Clay plaster is an ecological wall coating offering a natural look. Besides ecological and aesthetic aspects, clay plaster can also serve as a natural air-conditioning system. Due to its high water absorption capacity, it creates a pleasant indoor climate. Clay plasters buffer peak moisture loads in the living space and release the moisture to the rooms again with a time delay.

That way, the indoor air humidity is naturally regulated, ensuring a balanced indoor climate that is never too dry even in winter.

Coloured clay topcoat plasters / facing plasters are available in a great variety of textures and colours and are eminently suited for modern and aesthetic housebuilding on all standard building substrates.



Picture: buero-magma.at

CLAY PLASTER

Art. no.	Designation	Pcs / pallet	Yield approx.
30301	Universal clay plaster 25 kg	42 bags	1.35 m ² at 10 mm
30302	Universal clay plaster 1,000 kg	Big bag	54 m ² at 10 mm
30311	Clay topcoat plaster fine 25 kg	42 bags	5.7 m ² at 3 mm
30312	Clay topcoat plaster fine 1,000 kg	Big bag	228 m ² at 3 mm
30317	Clay adhesive and reinforcing mortar 25 kg	42 bags	5 m ² at 3 mm
30318	Clay wall and surface filler natural light 10 kg	33 pcs	7.5 m ² at 1 mm
30321	Clay undercoat plaster with straw 25 kg	42 bags	1.1 m ² at 15 mm
30322	Clay undercoat plaster with straw 1,000 kg	Big bag	42 m ² at 15 mm
50208	Clay smoothing plaster white 10 kg	50 bags	10 m ² at 2 mm

ACCESSORIES FOR CLAY PLASTER

Art. no.	Designation	Yield approx.
40309	Reed mats 70 stems per m, 5 x 2 m, plaster base for clay plasters	10 m ² /roll
52011	Primer coarse grain orange 10 l, ready to use in bucket, (grain size 0 – 1.8 mm); as binding agent on smooth, poorly absorbent substrates for clay plaster coating up to approx. 10 mm	30 m ² depending on substrate
52012	Primer fine grain ochre 10 l, ready to use in bucket (grain size 0 – 1 mm); as binding agent on smooth, poorly absorbent substrates for clay plaster coating up to approx. 4 mm	50 m ² depending on substrate
52013	Primer smooth white 10 l, ready to use in bucket, for priming clay plasters before applying clay paint	100 m ² depending on substrate
52014	Deep primer and stabiliser 10 l, liquid in canister, for stabilising sandy substrates, old plasters before applying clay plasters, can be used in diluted form for stabilising sandy, chalky clay plaster surfaces	50 m ² depending on substrate



Picture: Homerun GmbH

CLAY PAINTS, FACING PLASTERS AND ADDITIVES

Clay paints have a number of special properties that distinguish them from other wall paints:

- Naturalness: Clay paints consist of the natural materials clay, sand and water and do not contain any synthetic adhesives. This makes them particularly ecological and non-hazardous to health
- Colour intensity: Clay paints have a particularly high colour intensity and a warm, natural and pleasant appearance
- Durability: Clay paints are particularly durable and wear-resistant

CLAY PAINTS, FACING PLASTERS AND ADDITIVES

Art. no.	Designation	Yield approx. / Additional information
50205-xx ¹	Clay wall paint dry powder, 5 kg	38m ² depending on substrate
50206-xx ¹	Clay wall paint dry powder, 10 kg	77m ² depending on substrate
50207	Brush-on plaster additive 0.5 kg	Brush-on plaster additive for 5 kg clay paint, (max. 10% may be added to clay paint)
50208	Clay smoothing plaster white 10 kg	10m ²
50213	Primer	Primer smooth, white 10 l, ready to use in bucket, for priming clay plasters applying clay paint, yield approx. 100 m ² depending on substrate
50212-xx ¹	Facing plaster 20 kg	approx. 7 m ²
50214-xx ¹	Facing plaster 500 kg	approx. 172 m ²
50215-xx ¹	Facing plaster 1,000 kg	approx. 344 m ²

¹When placing orders, replace the article numbers "xx" with the article numbers of the colours of the earth (-01 to -09).

COLOURS OF THE EARTH

9 colour shades based on natural clay colours. Clay serves as both binding agent and colourant of the material. Available as clay paint and clay facing plaster. Coloured clay facing plasters can be combined with surface finish effect materials (see page 22).

COLOUR EXAMPLES



Snow
Art. no. -01



Champagne
Art. no. -02



Gold Ochre
Art. no. -03



Brick
Art. no. -04



Ruby
Art. no. -05



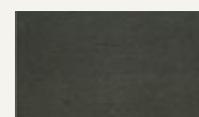
Lilac
Art. no. -06



Lime
Art. no. -07



Dove
Art. no. -08



Slate
Art. no. -09

39+1 PIGMENTS

40 colour shades as clay facing plaster and clay paint with pigment additives. All products are delivered in the form of dry powder. The finished pigment mixtures are supplied in additional bags that are matched to the respective container. The pigment mixture is mixed with water and the white base material (clay plaster snow, clay paint snow, clay smoothing plaster white). This ensures that the clay paint and the clay plaster always match exactly in colour shade, including when placing follow-up orders.

ADVANTAGES

- Free from preservatives, solvents and plasticisers
- Fast-drying and odourless
- Creates an unmistakable and natural indoor ambience
- Easy to apply using roller, sponge, glaze brush, brush or paint spray gun
- Different looks by using different application techniques (opaque, nuanced look)

POSSIBLE SIZES OF THE 39+1 PIGMENTS (CAN BE COMBINED WITH CLAY WALL PAINTS, FACING PLASTERS AND CLAY SMOOTHING PLASTER)

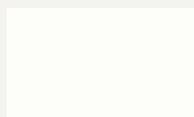
POSSIBLE SIZES OF THE 39+1 PIGMENTS		
Art. no.	Designation	Yield approx.
50217-xxx ²	Mini bag – sample pack for 1 kg clay paint, 2 kg clay facing plaster	Paint approx. 10 m ²
50218-xxx ²	Small bag for 5 kg clay paint, 10 kg clay smoothing plaster	Plaster approx. 0.7 m ² , see yield of paint, facing plaster, clay smoothing plaster
50219-xxx ²	Large bag for 10 kg clay paint, 20 kg clay facing plaster	

²When placing orders, replace the article numbers "xx" with the article numbers of the 39 +1 pigments (-001 to -039).

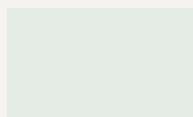
COLOUR EXAMPLES

SNOW

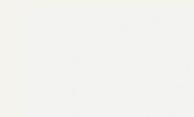
Snow 1
Snowwhite / **Art. no. -01**
or Clay white



Snow 2
Art. no. -001



Snow 3
Art. no. -002



Snow 4
Art. no. -003



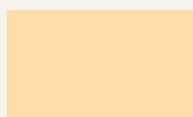
Snow 5
Art. no. -004

GOLD

Gold 1 / **Art. no. -005**



Gold 2
Art. no. -006



Gold 3
Art. no. -007



Gold 4
Art. no. -008



Gold 5
Art. no. -009

COLOUR EXAMPLES

MINT

Mint 1 / **Art. no. -010**



Mint 2
Art. no. -011



Mint 3
Art. no. -012



Mint 4
Art. no. -013



Mint 5
Art. no. -014

SKY

Sky 1 / **Art. no. -015**



Sky 2
Art. no. -016



Sky 3
Art. no. -017



Sky 4
Art. no. -018



Sky 5
Art. no. -019

LEAF

Leaf 1 / **Art. no. -020**



Leaf 2
Art. no. -021



Leaf 3
Art. no. -022



Leaf 4
Art. no. -023



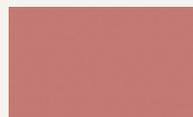
Leaf 5
Art. no. -024

BRICK

Brick 1 / **Art. no. -025**



Brick 2
Art. no. -026



Brick 3
Art. no. -027



Brick 4
Art. no. -028



Brick 5
Art. no. -029

SIENNA

Sienna 1 / **Art. no. -030**



Sienna 2
Art. no. -031



Sienna 3
Art. no. -032



Sienna 4
Art. no. -033



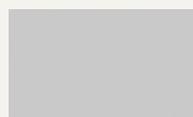
Sienna 5
Art. no. -034

TAUPE

Taupe 1 / **Art. no. -035**



Taupe 2
Art. no. -036



Taupe 3
Art. no. -037



Taupe 4
Art. no. -038



Taupe 5
Art. no. -039

SURFACE FINISH EFFECT MATERIALS

(CAN BE COMBINED WITH ALL COLOURED CLAY FACING PLASTERS OF THE "COLOURS OF THE EARTH" AND "39 + 1" SERIES)

COLOUR EXAMPLES



Baroque sand red
Art. no. 50216-01

The red sand creates a subtle reddish shade on the wall. The red sand grains become visible in some places, peppering up the colour structure and giving any colour shade a unique look.



Basalt sand anthracite
Art. no. 50216-02

In contrast to black gloss sand, anthracite basalt sand creates a non-glossy surface. The anthracite-coloured grains add a special touch to nearly any shade of colour, imparting a modern but still timeless and unpretentious appeal.



Gloss sand black
Art. no. 50216-03

This additive brings walls to life. The visible black spots are reflective and sparkle every time light falls on them, giving the surface a modern and classy design.



Golden straw
Art. no. 50216-04

Straw has been used as reinforcement in clay plasters for millennia. Our golden straw additive serves merely decorative purposes, adding a rustic and rural touch of past times.

COLOUR EXAMPLES



Silver mica
Art. no. 50216-05

This effect material creates a glossy surface with a vivid and cloudy shimmer that varies depending on the angle of light. Gives walls an elegant silvery lustre.



Starshine
Art. no. 50216-06

This effect material creates a reflective gloss every time light hits the wall surface. The light is reflected in some places. The ideal choice to bring special rooms to life or highlight particular walls.



Stone plaster blue-grey
Art. no. 50216-07

The blue-grey sand creates a grainy, coarse-structured, impact-proof plaster surface. The surface can be sponged or smoothed. Apply in two layers.



Stone plaster yellow
Art. no. 50216-08

The yellow sand creates a grainy, coarse-structured, impact-proof plaster surface. The surface can be sponged or smoothed. Apply in two layers.



Picture: buero-magma.at

You can find the installation instructions for your clay construction products here.



Factory Vatersdorf

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Factory Schönwind

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Factory Pfeffenhausen

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Factory Weroth

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GET IN TOUCH WITH US



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