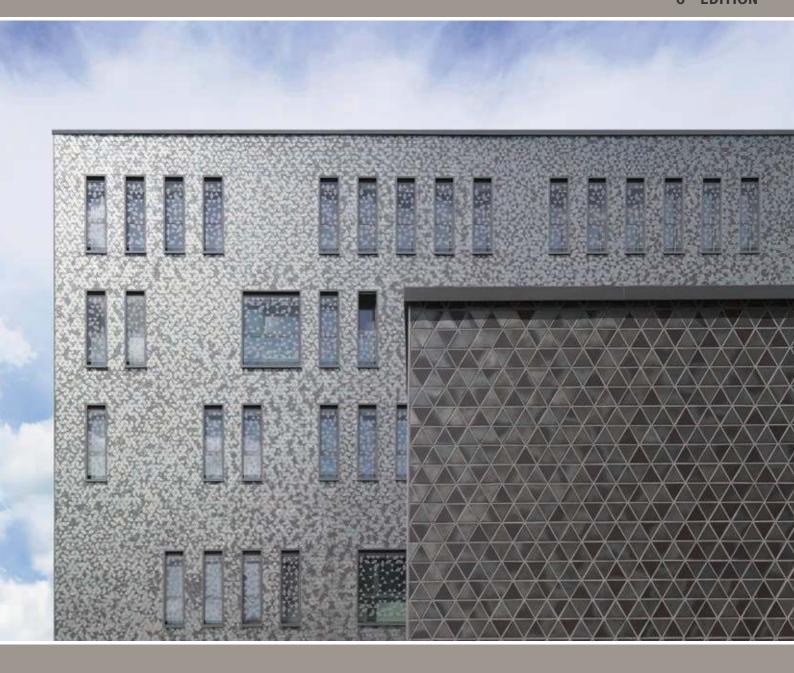


Фасадная клинкерная плитка ABC Klinkergruppe

6TH EDITION





ABC ceramic facades and brick slips.







Images: Images on cover and facing page: Medical Specialist Centre, Bonn-Beuel

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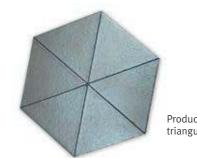
2103 Winterhude black-blue coloured, Köln

Medical Specialist Centre, Bonn-Beuel.

VISUAL DEPTH THANKS TO LIGHT REFLECTIONS

A silver-coloured brick slip with an edge length of 13 cm was developed especially for the facade design in accordance with the architecture office's specifications. The 340,000 individual, different tiles were applied to the ETICS by hand. Varying solar radiation changes the reflection of the numerous, shimmering tiles and creates a contrast-rich interplay of light and shadow that repeatedly emphasizes the distinctiveness of the location.

The medical specialist centre in Bonn-Beuel was opened in 2014. A modern doctors' building for 15 practices and medical service providers was created on Konrad Adenauer Platz on the east bank of the Rhine in Bonn. Catering and retail spaces on the ground floor complement the medical specialist centre.



Production of the triangular ceramics

Projektdaten

Project: Medical specialist centre with

underground garage, offices,

residential space and catering

Client: FAZ GmbH & Co KG

Architecture: bob-architektur BDA, Cologne
Competition: 1st prize 2007 international urban

development competition

on Konrad Adenauer Platz

General

contractor: Kreer Ingenieure GmbH















Marked by the heat. German Aerospace Center.

IMPETUS FOR DEVELOPMENT OF ABC FACADE CERAMICS

The city of Bremen now has a new research building for the German Aerospace Center. The architecture office of Kister Scheidhauer Gross created the design and executed the building.

Inspired by the appearance of the ceramic heat protection shields on the space shuttle series (NASA), the distinctive facade ceramics for this building (series: Shuttle) were developed in the ABC ceramic laboratory. The required ceramics had to show traces of heat, wear and variable numbering. A realistic approximation of the American space vehicle "models" was required.

Project data

Project: German Aerospace Center (DLR),

Laboratory building, Bremen

Client: Deutsches Zentrum für

Luft- und Raumfahrt e. V.

Project costs: 11.4 million Euros

GFA: 3.850 m² Completion: 2011

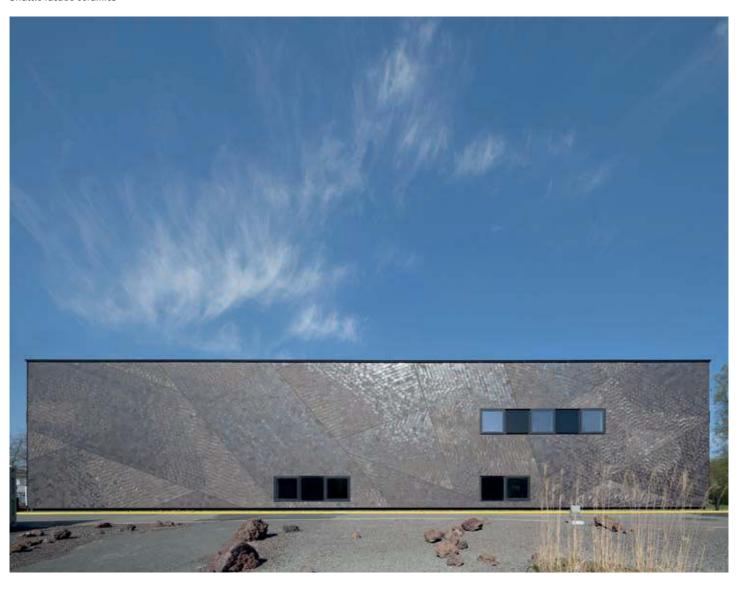
Architecture: kister scheidhauer gross

Architekten und Stadtplaner GmbH

Cologne/Leipzig

www.ksg-architekten.de

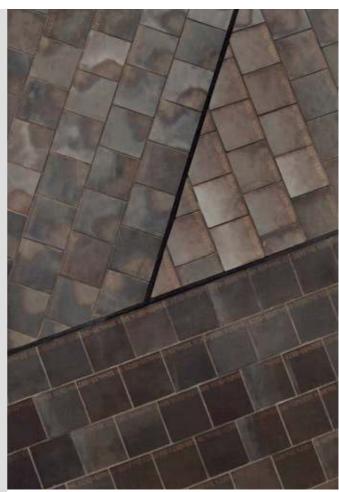
Shuttle facade ceramics





Space shuttle ceramic heat protection shield







Kornmarkthaus Bautzen.

Projektdaten

Project: Kornmarkthaus Bautzen

Client: Bautzener Wohnungsbaugesellschaft

mbH, Bautzen www.bwb-bautzen.de

Floor area: 5.510 m² consisting of:

2.450 m² retail space,
1.280 m² residential space,
1.780 m² office space,

underground garage with 122

parking spaces

Completion: 2014

Architecture: Bauplanung Bautzen GmbH, Bautzen

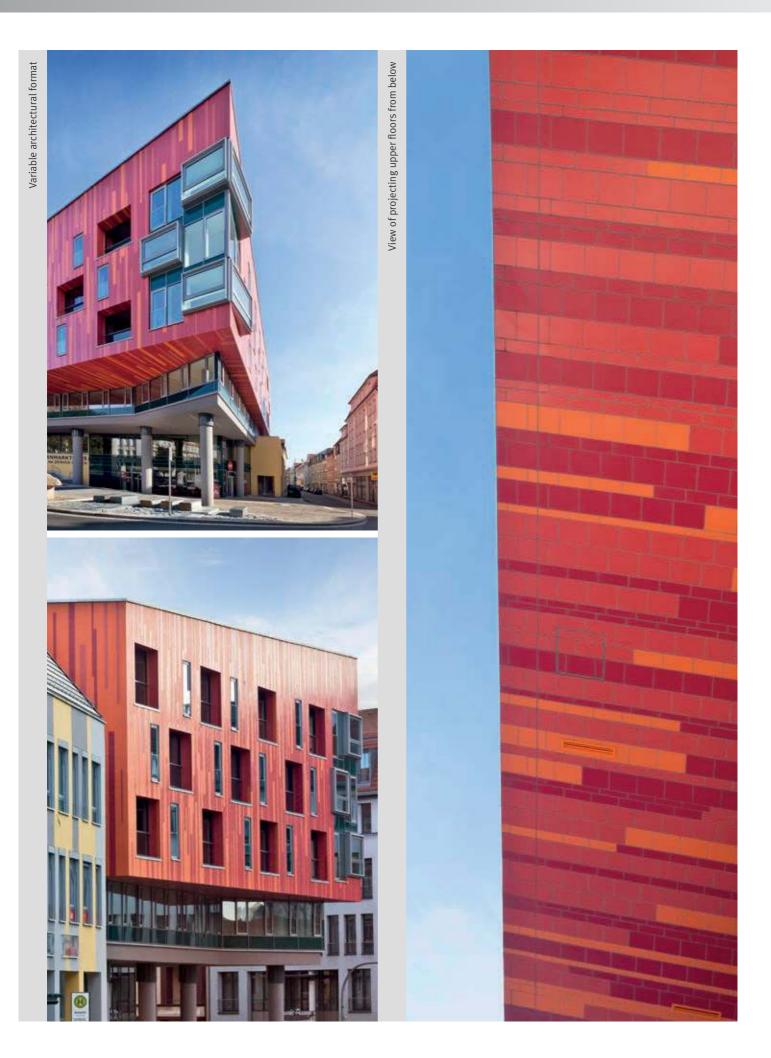
www.bauplanung-bautzen.de



Bautzen: view of the old town







German facade prize 2014 – honourable mention: Buchsbaumweg, Hamburg

The U-shaped block perimeter development on Buchsbaumweg in Hamburg, - designed in the early 1930s with brick facades - has been brought up to contemporary energy standards using brick slips with a ETIC system. Nevertheless, the new Street facade design adheres closely to the original concept from the period of construction: Brick slips, with colours that replicate the historic artifact, accentuated building corners, bays and projecting masonry courses are as much a reminder of the original condition as the sills and mullions of the new, built-in windows.

In the jury's view, "the replication of the original street elevations in the course of a ETICS facade renovation" was particularly deserving of honourable mention.



Project data

Prize: German and Austrian facade prize 2014

Sponsor: Brillux GmbH & Co. KG

Project: Buchsbaumweg apartment complex,

Hamburg

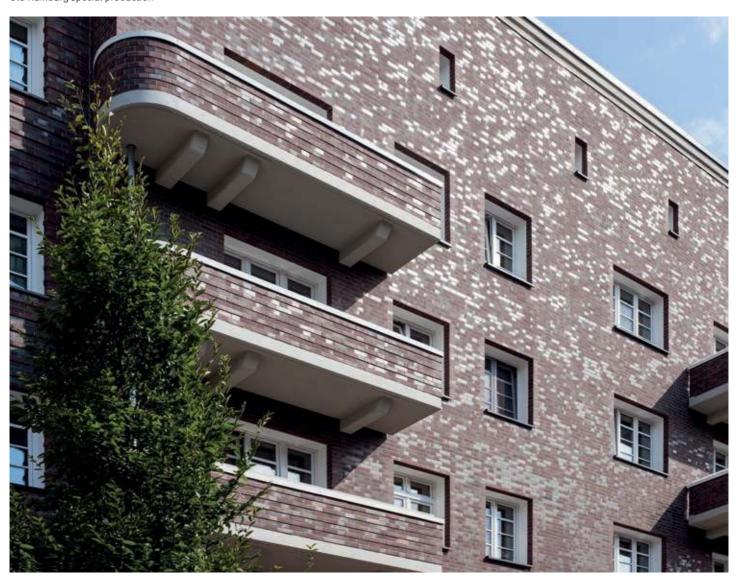
Execution: AFB Fassadendämmung +

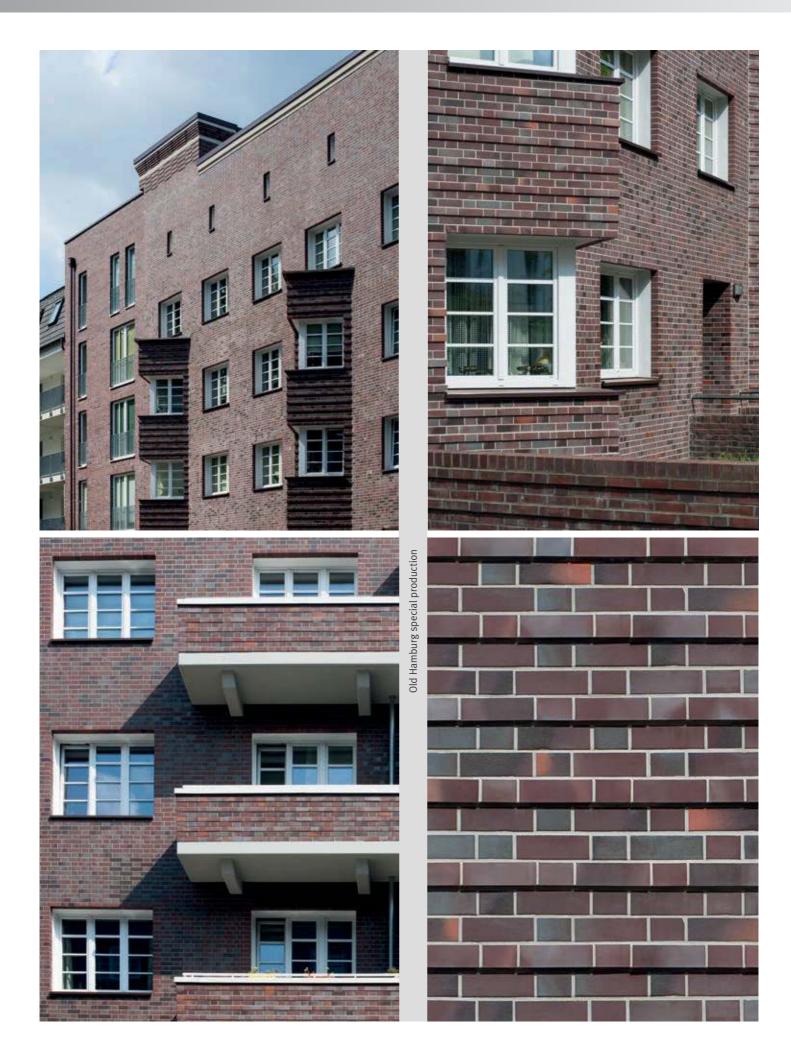
Malereibetrieb GmbH, Hamburg

Design: neumann + partner, Hamburg

Owner: Baugenossenschaft dhu eG, Hamburg ETIC System: WDV-System I + III, Brillux, Münster

Old Hamburg special production





Neue Salzhalle Kiel.

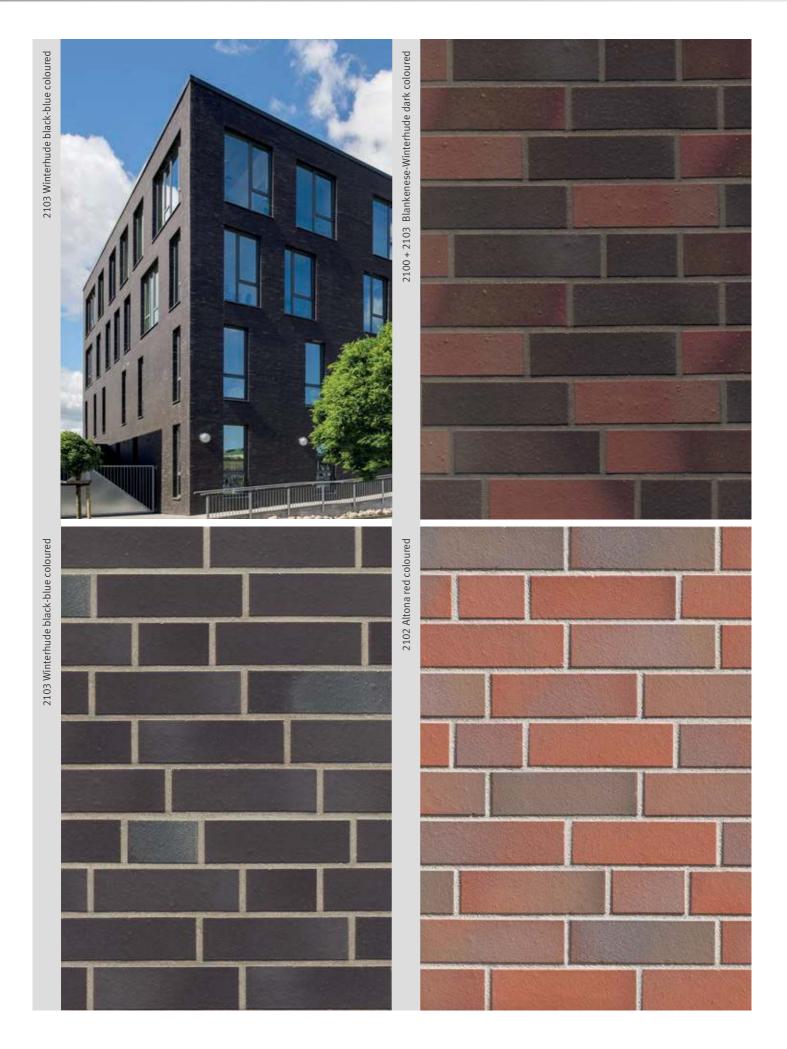
The Neue Salzhalle at the Kiel Seafish Market is the rehearsal stage for Kiel Theatre. Rehearsals of numerous large theatre productions take place on the premises in the course of the season. In addition, the building and adjacent area also function as a location for special events.





Neue Salzhalle, Seafish Market, Kiel





Vackov residential complex, Prague

The design of this residential complex satisfies a multitude of requirements that are placed on modern urban buildings today. Considering the urban density of the city, a high measure of privacy was achieved here and the desire for a private house with garden was widely achieved.

The entire project consists of three building groups, each with 3–4 buildings. Their size, character and spatial organization create the potential for neighbourly living.

The permeability of the complex is achieved by semi-public paths between the individual building groups. The paths meet at a central plaza that serves as an informal centre for the residential complex.

While the wooden facades of the interior courtyards convey a feeling of warmth and security, the externally oriented brick facades emphasize the high value of the buildings.

Project data

Project: Vackov residential complex, Prague Location: Prague 3 - Zizkov, Czech Republic

Investor: METROSTAV vackova Inc.

Floor area: 11.000 m²

124 housing units,3 meeting rooms

Completion: 2011

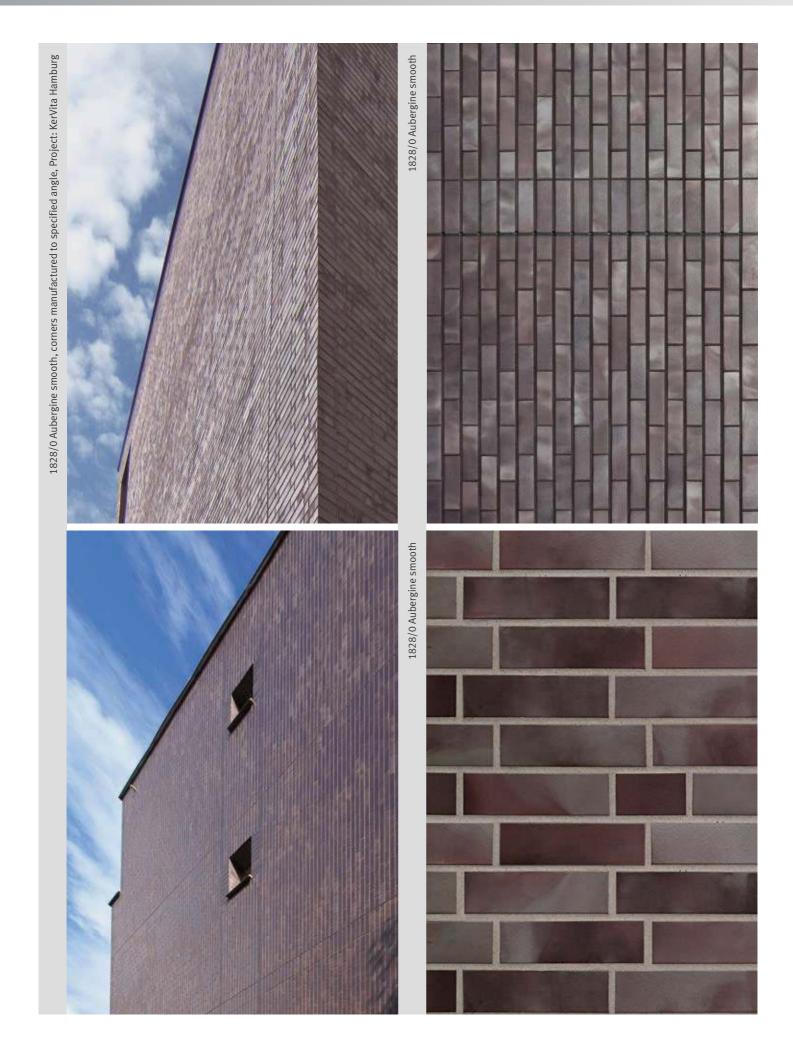
Architecture: Jiran Kohout architekti,

s.r.o. Nabidka slu eb architektonicke kancela e.

www.jkarch.cz

1828/0 Aubergine glatt





Veringeck model project, Hamburg

HAMBURG INTERNATIONAL BUILDING EXHIBITION 2007-2013

"DESIGNS FOR THE FUTURE OF THE METROPOLIS"

Veringeck is an intercultural model project, unique in Germany. Since autumn 2011, senior citizens from different cultures can experience their retirement together in the Veringeck in Wilhelmsburg's Reiherstieg district. IBA Hamburg GmbH developed this model project for intercultural living arrangements for the elderly together with the Social Affairs, Family, Health and Consumer Protection Authority, the investor GbR Veringeck, the Multi-Kulti nursing service and the Coordination Centre for Residential Care Associations. Relatives can also be actively included in the residents' everyday events. The model has become a precedent for other facilities. An oriental ornament in the form of a girih pattern was used in the latticework of balcony railings and as a colour print on the facade ceramics.



Project data

Project partners: Veringeck GbR, Multi-Kulti nursing

service, Health and Consumer Protection Authority, Hamburg Coordination Centre for Residential Care Associations at

Stattbau Hamburg GmbH, Hamburg-Mitte district office

Project costs: 3.74 million Euros (construction costs

3.25 million Euros)

Use: Serviced housing for senior citizens,

sidential care association, day care facility, neighbourhood cafe and hamam,

turkish bath, elderly housing.

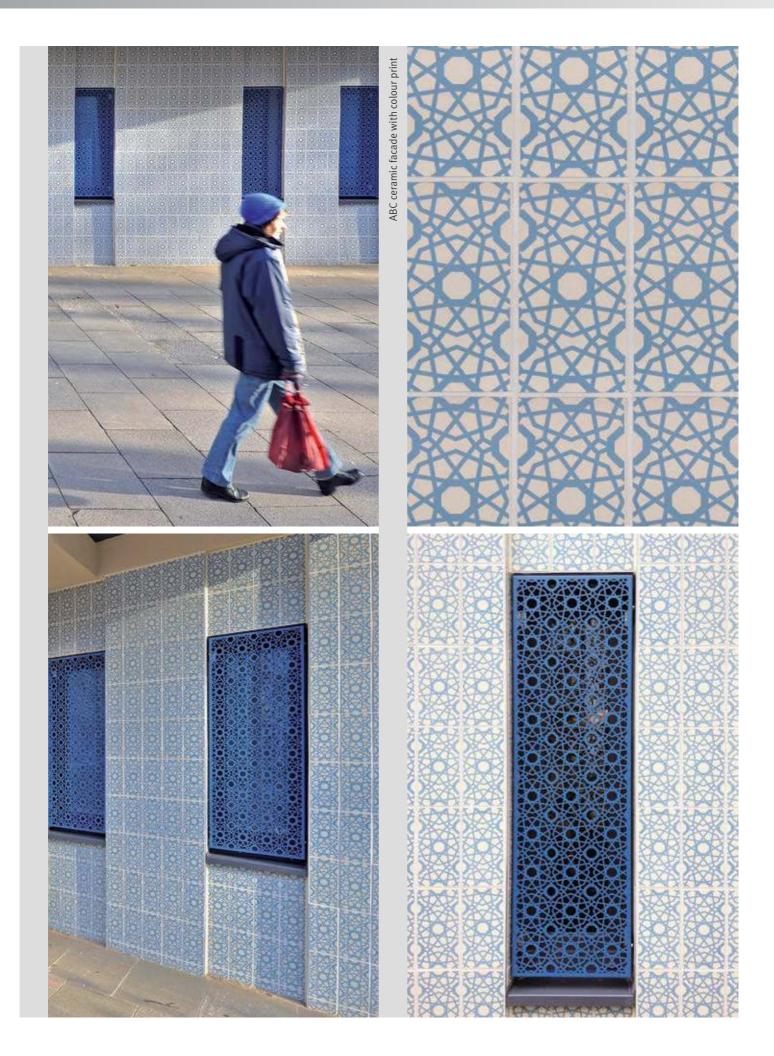
Completion: 2011

Architecture: Gutzeit + Ostermann Architekten,

Hamburg







Investment in education - Osnabruck adult education centre.

The Osnabruck Land adult education centre (VHS) is delighted with the new construction of a training and administration building. 3800 m² of space is available for offerings in the areas of school leaving qualifications and adult education - a large piece of the future for the city's range of courses and events.

Project data

Project: Osnabruck adult education centre (VHS)

Client: VHS Osnabrücker Land gGmbH

Construction period: 11/2009 -10/2010

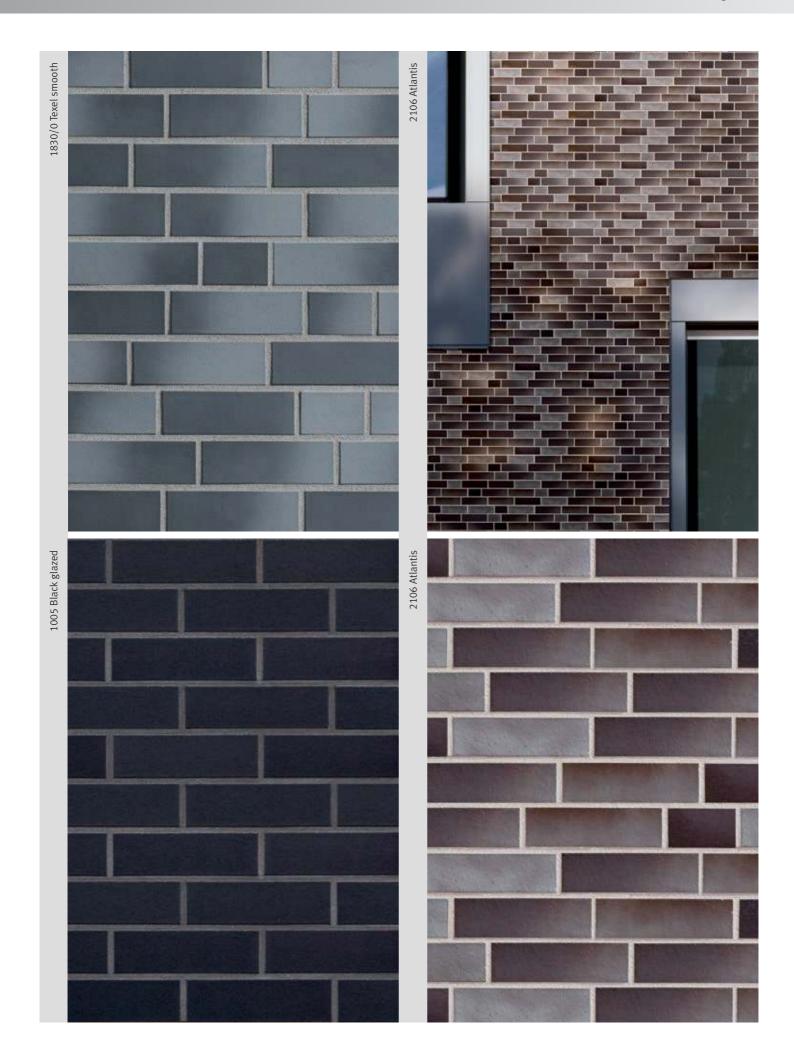
Gross story area: 3.700 m²

Architecture: Architekturbüro SHF, Werner Hüdepohl



1830/0 Texel smooth 1830/0 Texel smooth





Ochtrup Factory Outlet Centre – new buildings in historic

BRICK ROTUNDA BY DOMINIKUS BÖHM

The company "rotunda" built in 1942 by the Cologne master church builder Dominikus Böhm counts as one of the highlights of pre-war modern in North Rhine-Westphalia. Originally built as a warehouse for fabrics, the brick rotunda now houses a portion of the covered area of the Ochtrup Factory Outlet Center.

Architecturally, the clearly articulated rotunda stands in sharp contrast to the classicist Beltman building. With its combination of masonry and bands of glass, the style is inspired by the clear, no-frills architecture of the Bauhaus.

Projektdaten

Project: FOC Ochtrup
Site area: 85.000 m²

Investment volume: approx. 52 million Euros

Retail space: 11.500 m²

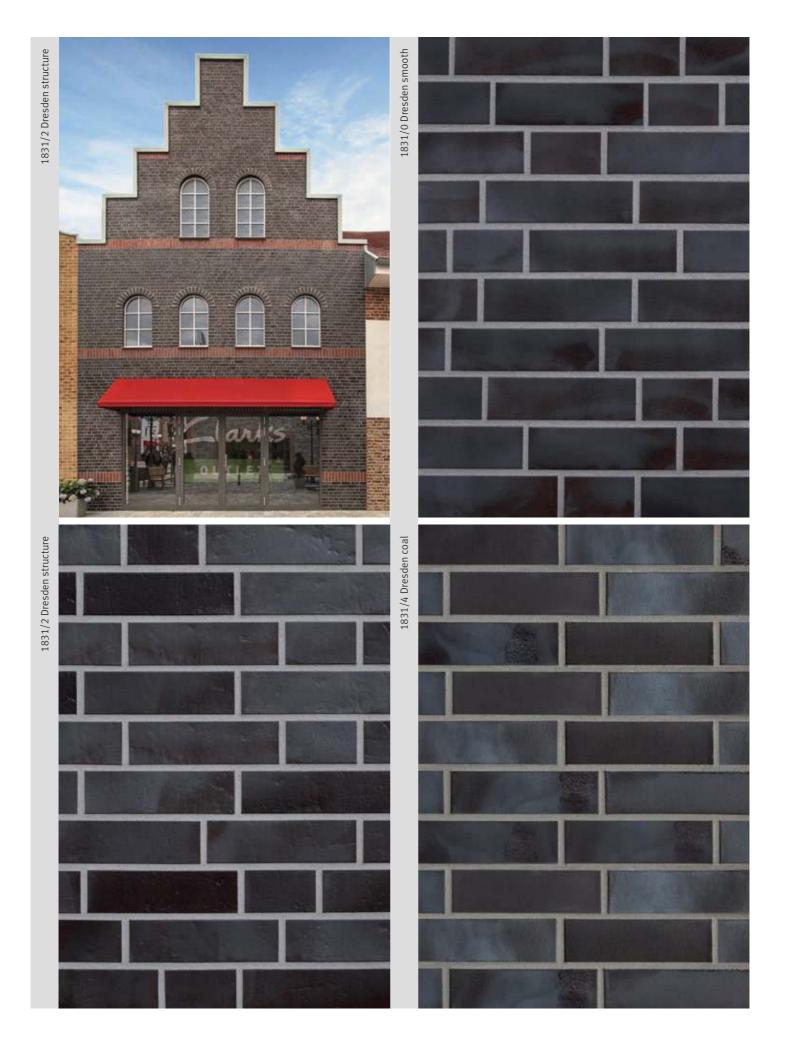
65 shops

FOC investor: Thomas Dankbar Architecture: Schmiegel + Denne

architecture, Ochtrup

FOC Ochtrup historic building





FOC Ochtrup.

NEW USE FOR THE OLD PRODUCTION PLANT

The Schmiegel & Denne architectural and structural engineering office in Ochtrup was commissioned with the task of expanding the retail areas.

The textile company's historic production halls were removed. New, small-scale "village streets" that offer space for the required 65 shops were built in the core area on an $85,000 \text{ m}^2$ site.

The investor's objective was to build a "third place" where the customer feels comfortable when he goes shopping in his leisure time. The aim was to implement an architecture that the customer identifies with - an architecture with recognition value and a lasting impression.

Project data

Project: FOC Ochtrup Site area: 85.000 m²

Investment volume: approx. 52 million Euros

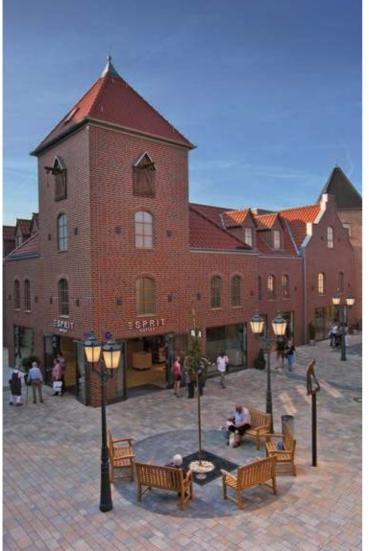
Retail space: 11.500 m²

65 shops

FOC investor: Thomas Dankbar Architecture: Schmiegel + Denne

architecture, Ochtrup

1822/0 Nordkap NF



1004/0 Naturbrand smooth



ABC Nordkap

1821/0 Malta smooth NF 1821/0 Malta smooth NF 1004/0 Naturbrand smooth 1004/0 Naturbrand smooth

Value retention and energy savings for public buildings.

SECURING EXISTING STOCK

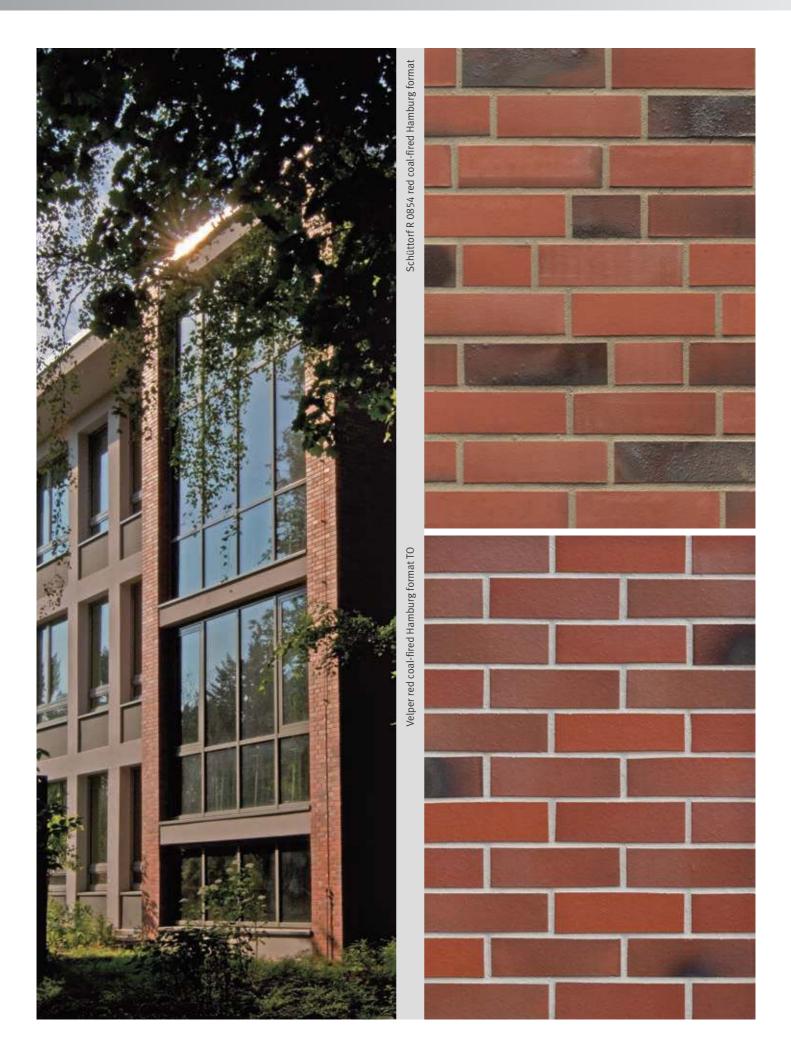
The potential for energy cost savings in public buildings is considerable. More and more, these savings potentials are being exploited by the bodies responsible for these facilities.

Extensive renovation and energy saving measures were also implemented with ABC brick slips on an ETIC system at the school building on Denksteinweg in Hamburg.









ABC ceramic facade in clinker format.

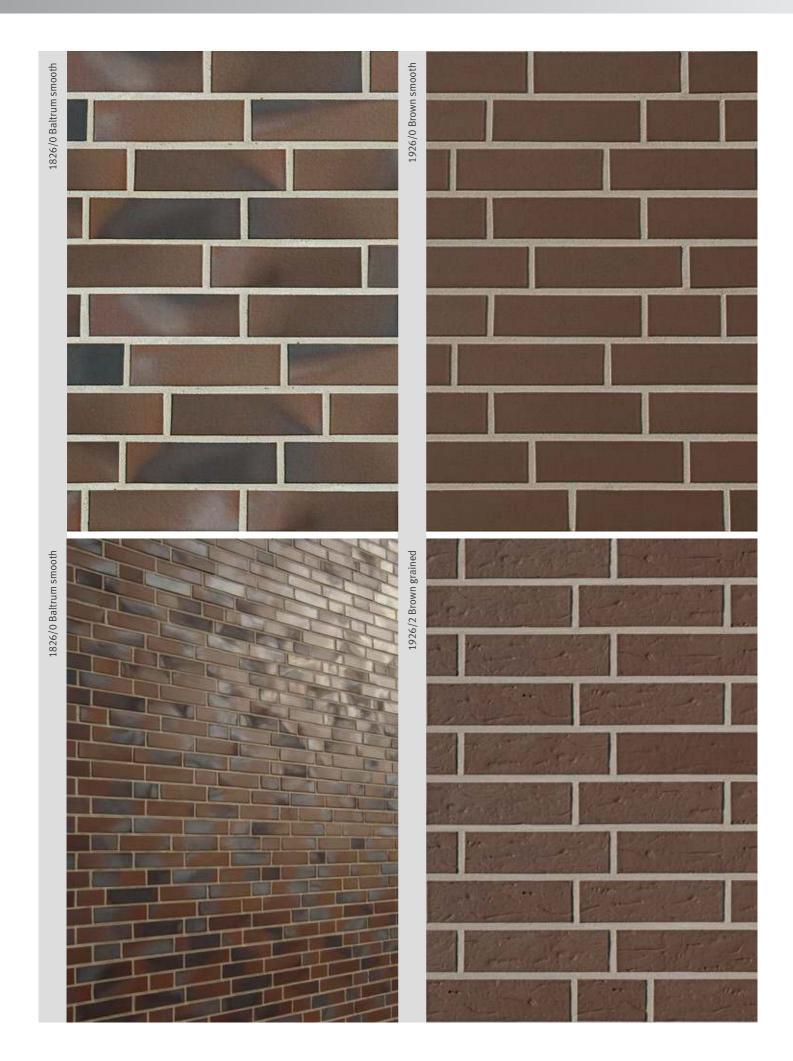


1826/0 Baltrum smooth

Administrative building in Laer / North Rhine-Westphalia (NRW



ABC Baltrum and Brown



Ceramic facade on ETIC system in variable architectural format.

UTRECHT UNIVERSITY OF APPLIED SCIENCES, AMERSFOORT

The Utrecht University of Applied Sciences required a building for the Amersfoort location that housed the various disciplines under one roof. The building meets the individual requirements of different university departments. The ground and first floors were given a public character - the departments can present themselves to the public there. A transparent, open appearance was implemented. The remaining floors were distributed among the respective departments, taking the special demands of university departments into account. (www.dp6.nl)

Variable architectural format for Utrecht University in Amersfoort

Project data

Project: Utrecht University of Applied

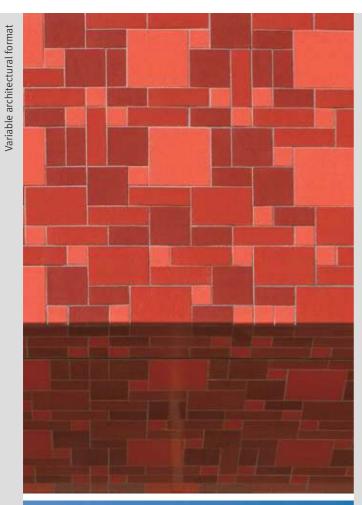
Sciences, Amersfoort

Client: Burgfonds, 5300 AC Zaltbommel
Design office: DP6 Architekturstudio - www.dp6.nl

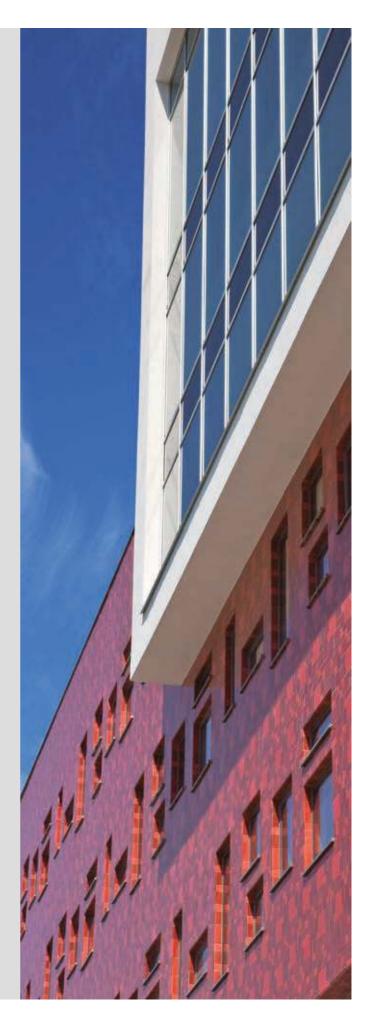
Architect: Chris de Weijer Surface area: 18.000 m²

Facade: ABC ceramic facade approx. 3.000 m²









Variable architectural format

THE FREEDOM OF CREATIVE CERAMIC FACADES

Architecture has rediscovered the facade is a space for individual design. In the metropolises, buildings are being constructed whose facades astonish with new textures and patterns in colourful tile and ceramics. Our task is to implement the specifications and creativity of architects. Firing colours and formats in accordance with precise specifications and arranging them in new patterns is part of our service. Thus, individual buildings with constructively "light shells" of ceramic facades are realized in complementary collaboration with the design offices.



Variable architectural format







- Masonry clinker wall
 11,5 cm thickness
 2,1 kN per m²
- Curtain wall- ceramics natural stone concrete
 3 cm thickness
 0,8 1,2 kN per m²
- 3. ABC- ceramic facade on ETIC system 1,2 cm thickness 0,45 kN per m²

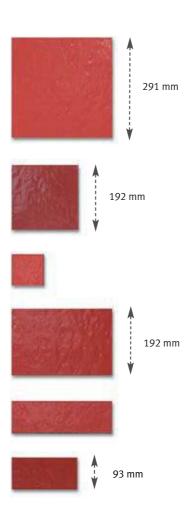
The overview shows that the ABC ceramic facade on thermal insulation has a low facade weight.

If a support structure is planned, two advantages result from the low weight.

- 1. The load-bearing wall can be built very cost-effectively.
- 2. With the ABC ceramic facade on an ETIC system, no costs arise for a facade support structure.



Ceramic facade manufactured in accordance with dimensional and colour specifications



Ceramic facade manufactured in accordance with dimensional and colour specifications

State library renovation and new construction, Berlin

AN IMPORTANT BERLIN BUILDING SITE

The centre that was lost to partial destruction has been given back to the Wilhelmine library building.

The new reading room was built in the middle of the great state library complex on "Unter den Linden" in Berlin. Germany's largest scientific university library has been expanded by the new construction.

ABC quarter brick, Berlin state library

Project data

Project: Berlin state library

Construction period: anticipated completion 2016

Scope: frontage length

Unter den Linden: 107 metres length on Charlotten and Universitätsstrasse: 170 metres,

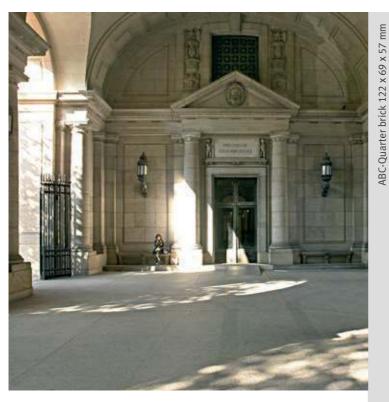
Floors above ground: 13

New construction: 46,250 m²

Estimated total cost: approx. 800 million euros
Architecture: HG Merz Architekten

with offices in Stuttgart and Berlin





Berlin state library gate









State library renovation and new construction, Berlin

BERLIN STATE LIBRARY, UNTER DEN LINDEN

The cubic light house of the new reading room picks up the proportions of its historic predecessor building. Its dimensions are constantly under-estimated: It fits almost modestly into the much larger, old Wilhelmine building, although Berlin Cathedral could easily be placed inside its area.

ABC 122 x 69 x 57 mm quarter bricks were used in the restoration of the large courtyard facades.

The new construction measures include the addition of two stories to the interior of the building and new construction of the reading room. The ceramic facade was created in the historic 122 x 69×12 mm quarter brick format on an ETIC system. ABC's ceramic developed the glaze colour for the new building based on the historic example of the courtyards.

ABC quarter brick, Berlin state library

PLENTY OF SPACE FOR GOOD THOUGHTS

The restored and newly created ceramic courtyard facades are visible. They surround the glass cube with its translucent shell. A 36.5 m high, open air space was created in the interior - impressive.

The special feature of the double layered glass facade is its thermal deformation, which refracts the light and distributes it in a more pleasant manner. In the lower part of the cube, there is a wooden book shell which houses the workplaces and books.

www.hgmerz.com - architects museum designers www.staatsbibliothek-berlin.de

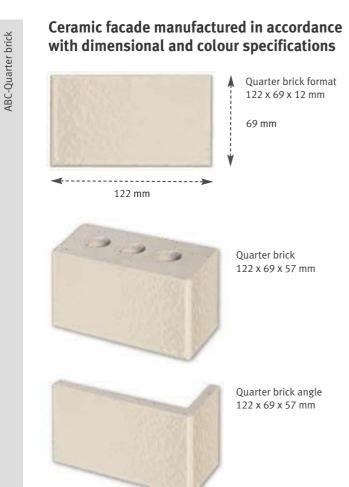






Interior view of the reading room

Berlin state library, 2014



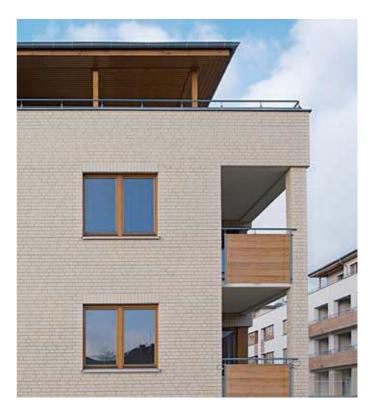


New construction with ceramic facades in clinker format.

In 2007, a new district with up-scale, owner-occupied apartments was built in Stettin. The Magnolia housing complex is distinguished by the special design of the row houses, its courtyards and green spaces. The upscale residential area in natural surroundings with excellent infrastructure are among the additional advantages of this development.

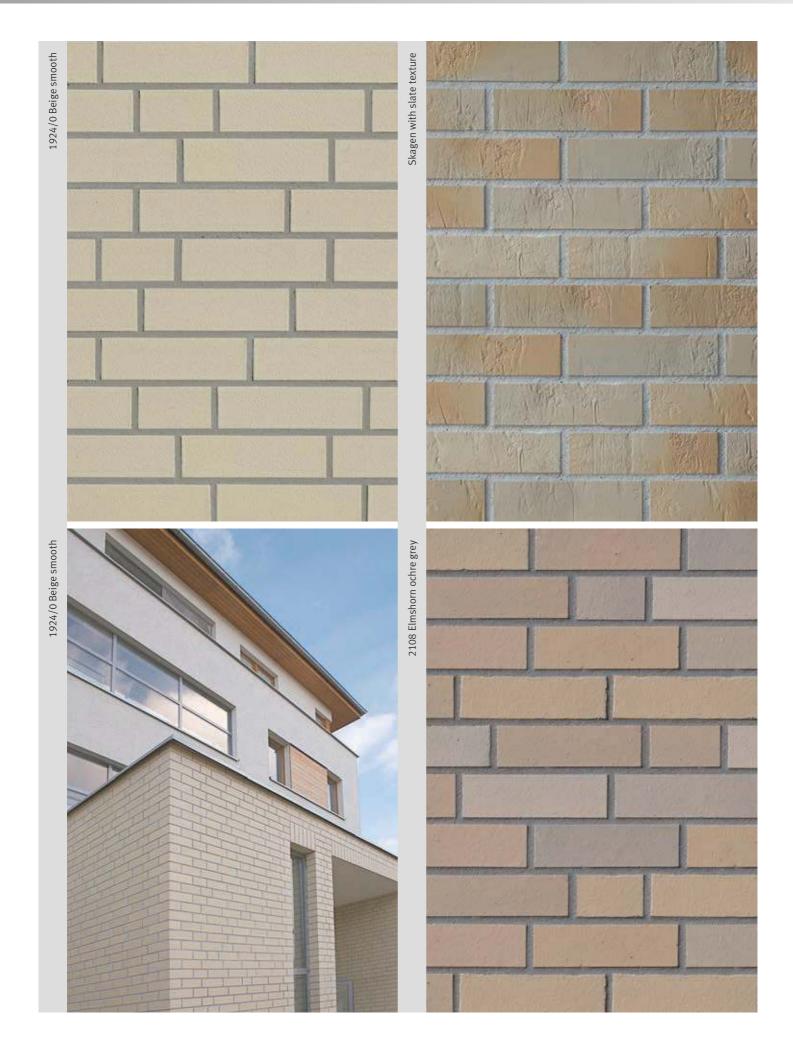
The limited materials used in the facade architecture, such as wood, rendering, clinker slips and the factory style of the large window elements give the entire residential area high value without breaking the established budget.

230 apartments were built and successfully marketed in the first construction phase. The successful Magnolia concept will be continued in a second construction phase. An additional 170 apartments will be built in 2008. A total of 12.000 \mbox{m}^2 of clinker slips were installed on the facades.



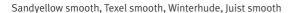
1924/0 Beige smooth 1924/0 Beige smooth





Markona Wohnpark Köln.

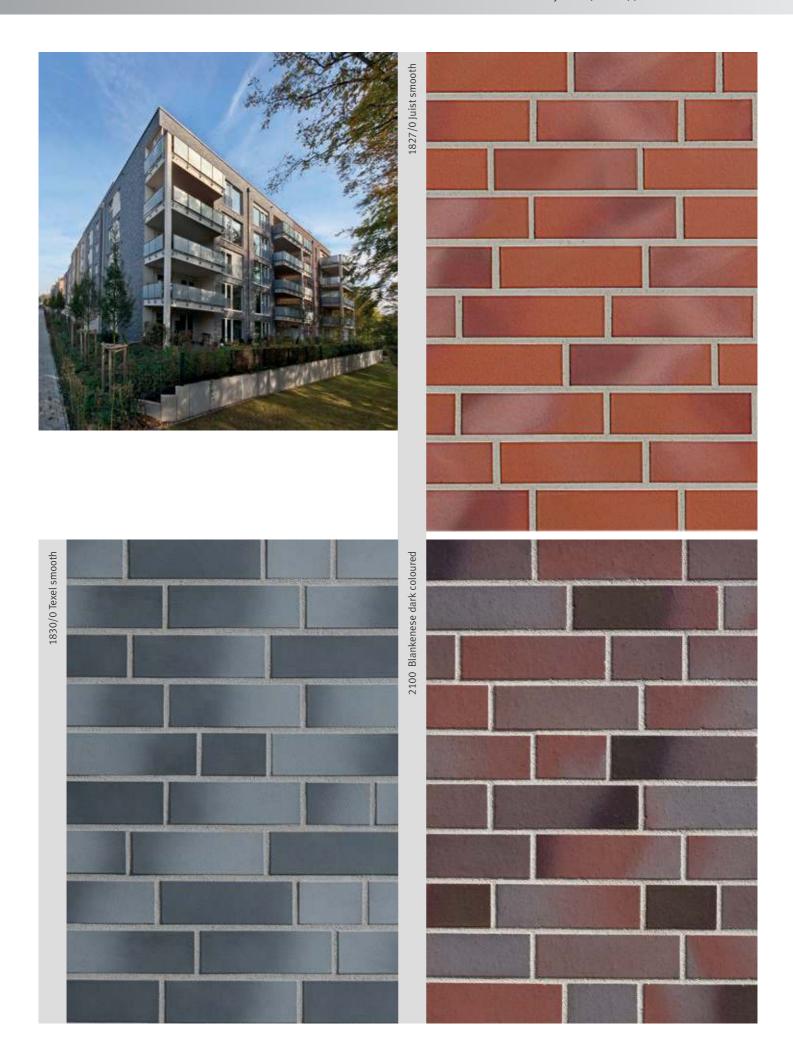
The MARKONA.TWO building project in Cologne-Neuehrenfeld was expanded by a further 76 owner occupied apartments in the 2nd phase. The apartments are distributed between a total of eight new buildings, which completes development of the 17.000 m² Markona residential park. In the process, 4 city residences with a total of 48 owner occupied apartments were built along Äusseren Kanalstrasse. Four garden buildings with a total of 28 apartments that open onto both the Markona residential park and the public Taku park were built in the interior area. Every apartment has open areas such as gardens, loggia, terraces or balconies. The ceramic facades of the housing complex were created with different clinker slips on a ETIC system. Go to sleep the new MARKONA.ZWEI construction project was built to the KfW 70 energy efficiency standard with an attached biomass heating plant..richtet.





1927/0 Sandyellow smooth





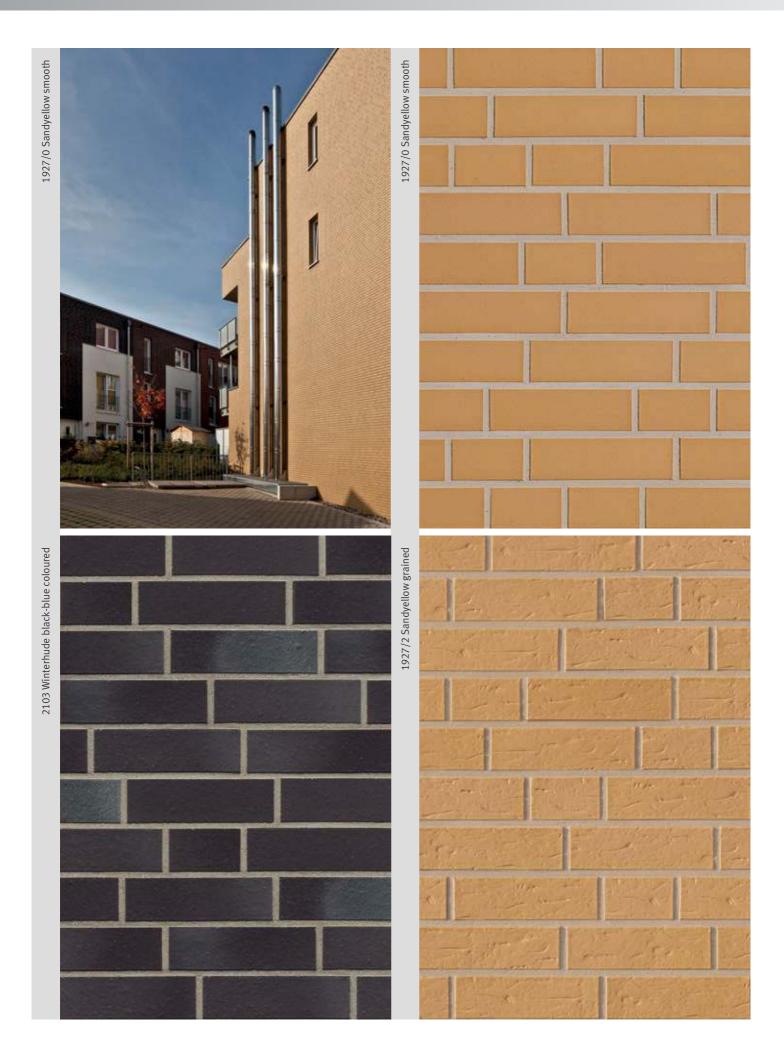
Markona residential park, Cologne.



Winterhude black blue coloured, Blankenese dark coloured, Juist smooth

Sandyellow smooth, Winterhude black blue coloured





ABC ceramic facade on thermal insulation / ETIC system.

E = External

T = Thermal

I = Insulation

C = Composite

The ETIC system in a few steps.

German Institute for Building Technology (DIBt), Berlin

The ETIC system shown has received an pproval for:

Mineral fibre insulation

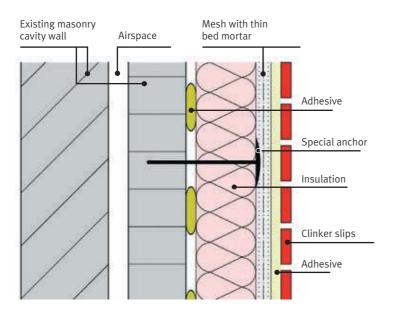
max. insulation thickness: 200 mm max. building height: 100 m

Rigid polystyrene foam

max. insulation thickness: 200 mm max. building height: approx. 20 m



Wall section, functional assembly











Important

We recommend that facade renovation is carried out by a specialist company.

Example of workflow

- 1a. + 1b. Application of adhesive to the insulation panels.
- 2a.+ 2b. Application of insulation panels to the facade.
- 3. Installation of a reinforcement layer.
- 4. Fastening of insulation panels with special anchors.
- 5. Application and smoothing of the second mortar layer.
- 6. Adhesive application.
- 7. Application of adhesive to the slip buttering-floating procedure)
- 8. Setting the slip in the adhesive.
- If the adhesive is set and the slip facade is completely dry, grouting can begin. There are two possibilities here:
- a. Smooth clinker slips can be grouted using a sponging procedure. The excess joint mortar is neatly washed off with a sponge float
- b. Classic grouting with dry grouting mortar, jointing iron and hawk. This procedure is suitable for all clinker slips.
- 10. Standard clinker cleaner should be used for cleaning if the installed areas are contaminated with mortar. In every case, the effectiveness and suitability of this cleaner must be tested on the building in advance.

 Remmers Klinkerreiniger

 Combi WR, diluted 1:15 has produced good results.

Important

Also pay attention to the manufacturer's processing requirements.

Thermal insulation and facade modernization in a few steps with the joint alignment system.

German Institute for Building Technology (DIBt), Berlin

The joint alignment system shown has received approval for:

a max. insulation thickness: 100 mm a max. building height: approx. 20 m



existing brick masonry anchor Special anchor System insulation panels Adhesive layer

Important

Clinker slips

We recommend that facade renovation is carried out by a specialist company.

Example of workflow

- 1. Application of adhesive to the insulation panels.
- 2. Setting insulation panels on the facade.
- 3. Fastening of insulation panels with special anchors.
- 4. Adhesive application.
- 5. Apply adhesive mortar to the clinker slips.
- 6. Firmly press the clinker slips into the adhesive bed.
- 7. Install the angle slips.
- 8. If the adhesive is set and the slip facade is completely dry, grouting can begin. There are two possibilities here:
- a. Smooth clinker slips can be grouted using a sponging procedure. The excess joint mortar is neatly washed off with a sponge float.
- b. Classic grouting with dry grouting mortar, jointing iron and hawk. This procedure is suitable for all clinker slips.
- 9. Standard clinker cleaner should be used for cleaning if the installed areas are contaminated with mortar. In every case, the effectiveness and suitability of this cleaner must be tested on the building in advance. Remmers Klinkerreiniger Combi WR, diluted 1:15 has produced good results.

Important

Also pay attention to the manufacturer's processing requirements.

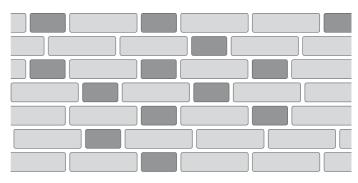
A beautiful facade is not an accident.

THE RANDOM BOND IS TYPICAL FOR A TRUE CLINKER FACADE.

In this style of brick laying, stretchers and headers alternate irregularly. The authentic appearance of a brick facade has its origins in monolithic construction. The header bricks ensure bonding of the masonry. This natural brick wall appearance has proven itself up to the present day.

With clinker slips, you are building on the traditional knowledge of good craftsmen, because the arrangement of half bricks in the masonry bond permits a multitude of natural masonry effects. Of course, other masonry bonds are also possible.

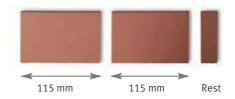
Building corners with angle slips - Buchsbaumweg, Hamburg



The random bond

Decide on the random bond.

Two headers can easily be cut out of a clinker slip with a tile cutter, a flex or a wet saw.







Building corner with ledge, Buchsbaumweg, Hamburg



building corner with angle slip - 2100 Blankenese dark coloured

Shaped ledge brick



The correct execution of window lintels:

- 1. with angle slips
- 2. with header bricks and angle slips

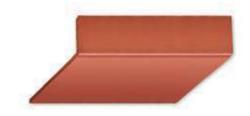




Window lintel laid in running bond.

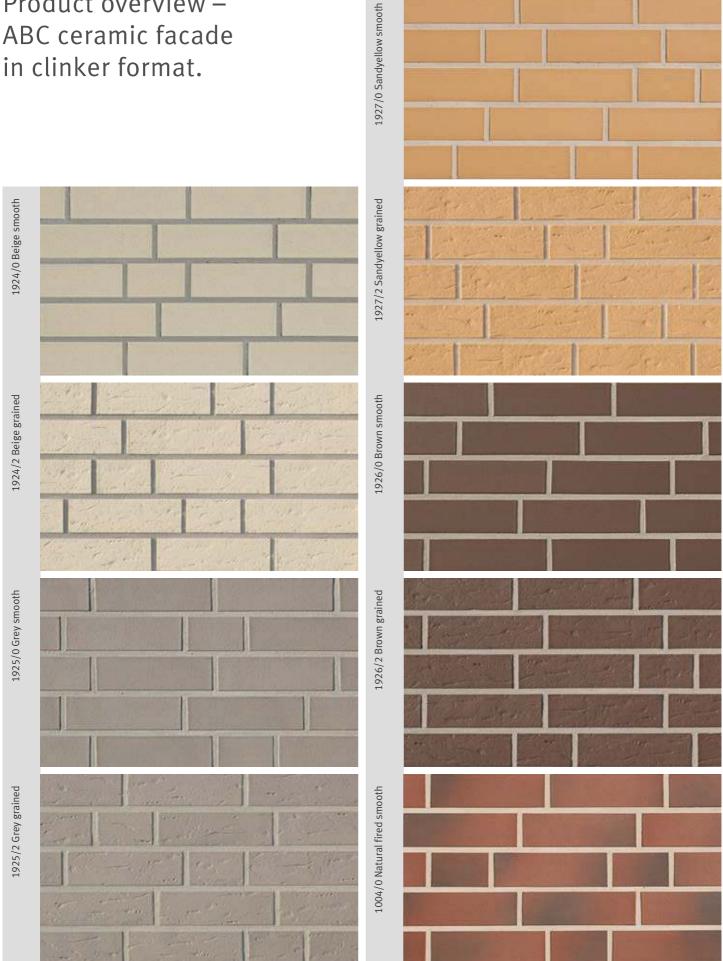
We have developed a special lintel element with drip edge for execution of window lintels in running bond. For DF and NF bonds. The long leg of the angle groups deep into the masonry niche and clads the structural elements.

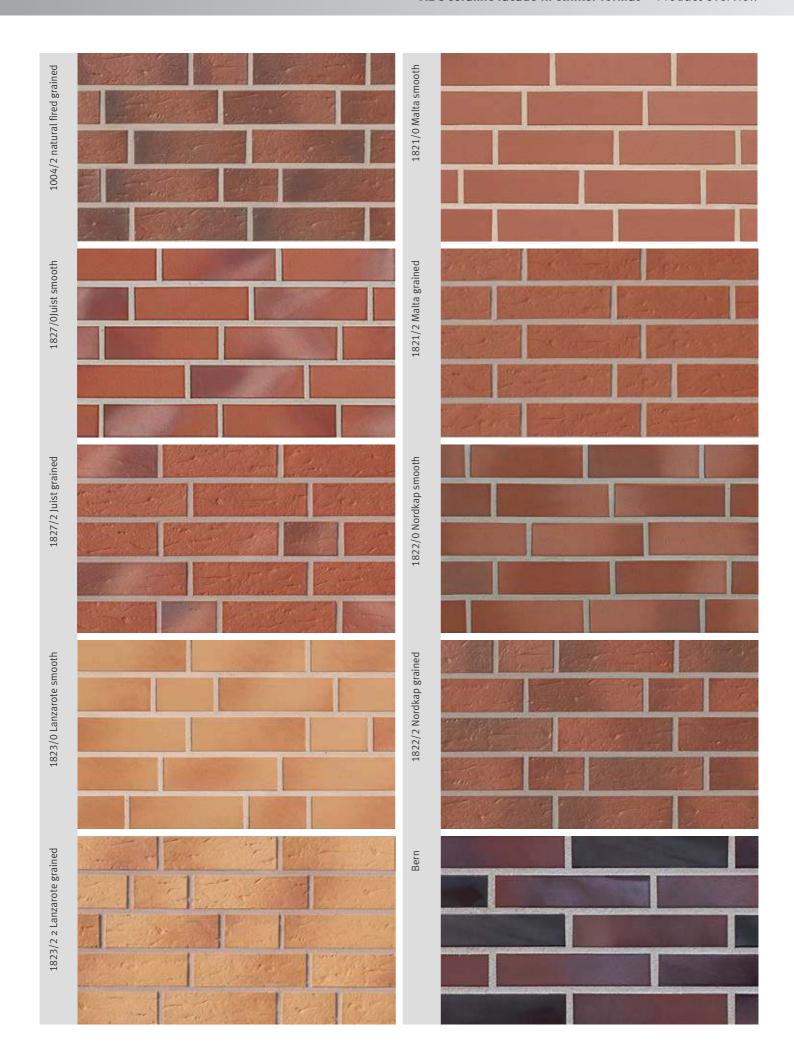
3. with window lintel angle

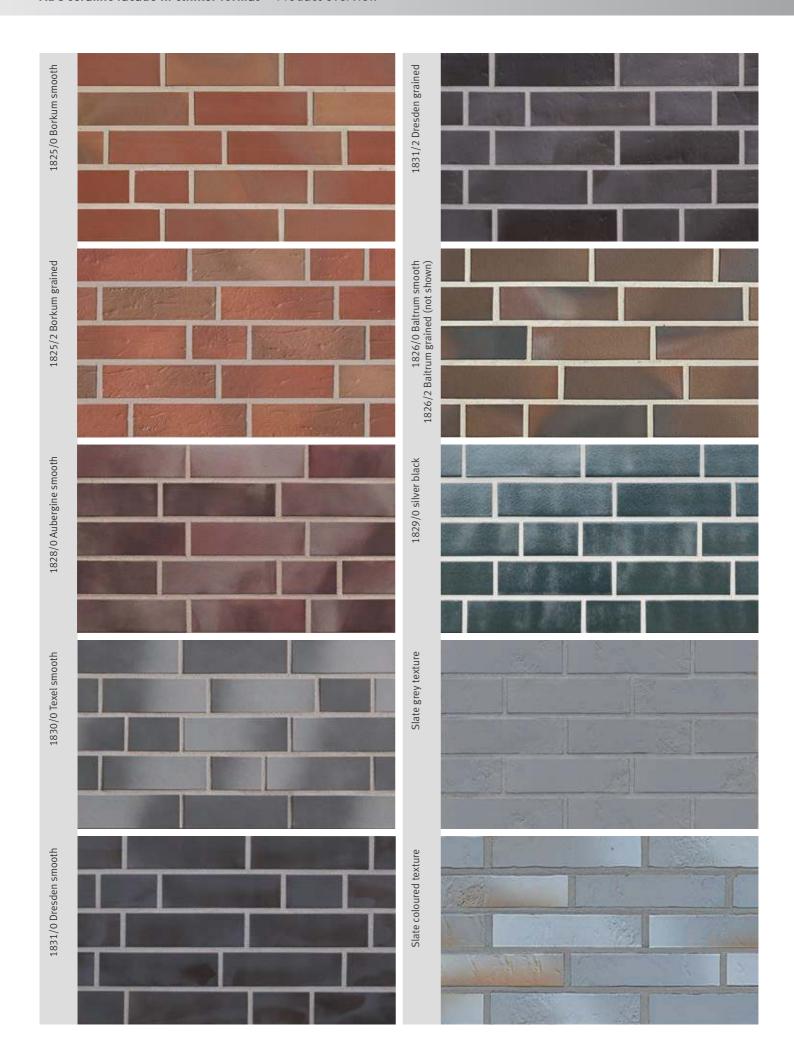




Product overview -ABC ceramic facade







| 240 mm | 10 mm | | 240 x 52 x 10 mm angle slip | $240 \times 71 \times 10 \text{ mm}$ angle slip | 240 x 115 x 10 mm angle slip | Mineral fibre insulation | Rigid polystyrene foam | |
|--------|------------------------------|--------------------------|--------------------------------|---|---------------------------------|--------------------------|------------------------|--|
| Nr. | Bezeichnung | Farbe | DF DF | A A | 2 DF 2 DF | Base | Base | |
| 1828/0 | Aubergine / smooth | blue violet flamed | * | • | * | | • | |
| 1826/0 | Baltrum / smooth | blue brown | • | • | * | | | |
| 1826/2 | Baltrum / grained | blue brown | * | | * | | • | |
| 1924/0 | Beige / smooth | beige self coloured | • | • | | • | | |
| 1924/2 | beige / grained | beige self coloured | * | • | * | • | • | |
| 1825/0 | Borkum / smooth | red brown flamed | • | • | | | | |
| 1825/2 | Borkum / grained | red brown flamed | * | | * | | • | |
| 1926/0 | Brown / smooth | Brown self coloured | | • | | • | | |
| 1926/2 | Brown / grained | Brown self coloured | * | • | * | • | • | |
| 1925/0 | Grey / smooth | Grey self coloured | | • | | | | |
| 1925/2 | Grey / grained | Grey self coloured | * | • | * | | • | |
| 1827/0 | Juist / smooth | Red blue coloured flamed | | • | * | | | |
| 1827/2 | Juist / grained | Red blue coloured flamed | * | • | * | | • | |
| 1823/0 | Lanzarote / smooth | yellow flamed | | • | | | | |
| 1823/2 | Lanzarote / grained | yellow flamed | • | • | * | | • | |
| 1821/0 | Malta / smooth | red self coloured | • | • | | | | |
| 1821/2 | Malta / grained | red self coloured | • | • | * | | • | |
| 1004/0 | Naturally fired TO / smooth | red black flamed | * | • | * | | | |
| 1004/2 | Naturally fired TO / grained | red black flamed | * | • | * | | • | |
| 1822/0 | Nordkap / smooth | red coloured | | • | | | | |
| 1822/2 | Nordkap / grained | red coloured | • | • | * | | • | |
| 1927/0 | Sandyellow / smooth | yellow self coloured | * | • | | | • | |
| 1927/2 | Sandyellow / grained | yellow self coloured | • | • | * | | • | |
| 1829/0 | silver black / smooth | black, matte gloss | * | • | * | | • | |
| 1830/0 | Texel / smooth | grey black | * | • | * | | • | |
| 1831/0 | Dresden / smooth | black flamed | * | • | * | | | |
| 1831/2 | Dresden / texture | black flamed | * | • | * | | • | |
| | slate grey texture | | * | * | * | • | | |
| | Slate coloured texture | | * | * | * | • | • | |
| | Bern | | * | * | * | | | |

^{*} available upon request

THE ESSENCE OF THE BRICK FACADE

The brick house has been a high quality building form of lasting value for centuries.

Beautiful brick villas, magnificent city houses from the turn-ofthe-century and the incredible diversity of historic brick architecture in North Germany, they are all an impressive document of brick culture - they are witnesses to building history and document the special significance of this building material.

ABC brick slips are produced in the traditional manner in our brick kilns. Their natural character defines the appearance of buildings, unmistakable brick houses in light, thin bricks from fired slate clay.

ABC brick slips are manufactured as split slips in the classic process. Slight edge irregularities, deformations and spalling are deliberate and emphasize the typical clinker character in the completely grouted facade.

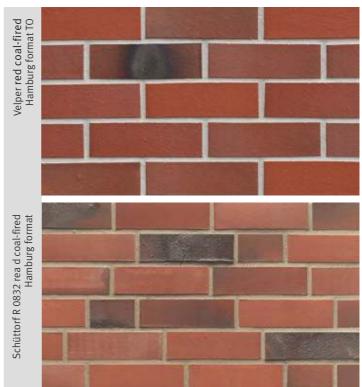
Additional ABC clinker and angle slips

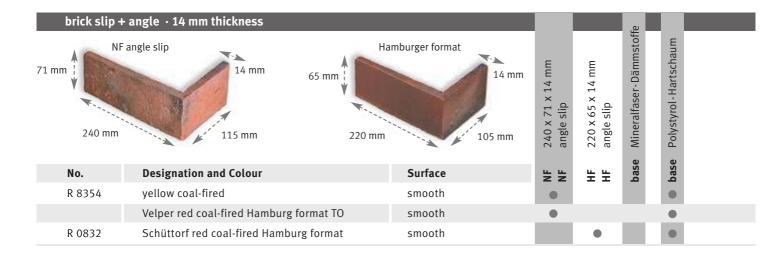
in 12 mm and 15 mm thicknesses are available upon request. The 15 mm clinker slips are also available with a dovetailed back side.



Product overview – ABC brick slips® 14 mm and 10 mm.



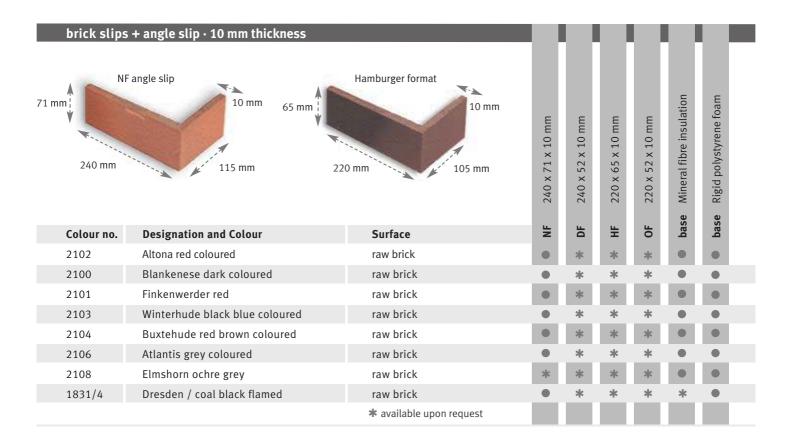




10 mm 2106 Atlanis 2108 Elmshorn ochre grey 2104 Buxtehude 1831/4 Dresden coal 2102 Altona red coloured 2103 Winterhude black-blue coloured 2101 Finkenwerder FS red 2100 + 2103 Blankenese-Winterhude dark coloured 2100 Blankenese dark coloured 2101 Finkenwerder red

Änderungen vorbehalten / Subject to change · Drucktechnisch bedingt kann es zu Farbabweichungen kommen / For technical reasons there may be color variations

ABC brick slips ® 10 mm - Product overview



2106 Atlantis



Änderungen vorbehalten / Subject to change · Drucktechnisch bedingt kann es zu Farbabweichungen kommen / For technical reasons there may be color variations

ABC ceramic facade in the living room.

INTERIOR DESIGN

ABC ceramic facades offer a real alternative to brick patterned, artificial stone panels in interiors. A true brick wall can be achieved with an added thickness of as little as 16-20 mm.

The authentic character of brick slips is immediately impressive. They shape the space and create a comfortable, natural ambience in living rooms, restaurants and businesses. A decorative option that interior designers also know how to use. Lasting protection of interior walls must be achieved with every element of the ceramic facade. This offers numerous design options for schools, staircases and corridors (with graffiti protection).

The ABC colour and form programme enables implementation of diverse, creative concepts.

No individual approval for use in interior spaces is required for long formats greater than 490 mm and max. 665 mm.

2100 Blankenese dark coloured



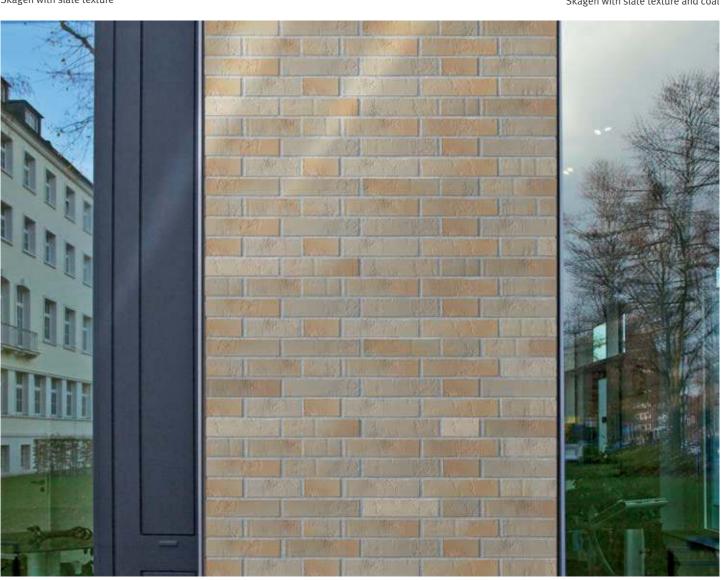
ABC ceramic facade Water-struck.

ABC water-struck are coarse ceramic products formed from natural raw materials such as regular and slate clay and fired in the clinker kiln at temperatures between 1,000-1,100°C. Through the addition of water in a mechanical striking process, the completed slips become soft and malleable. With its typical, natural face, the surface impression corresponds to a water or hand-struck brick.

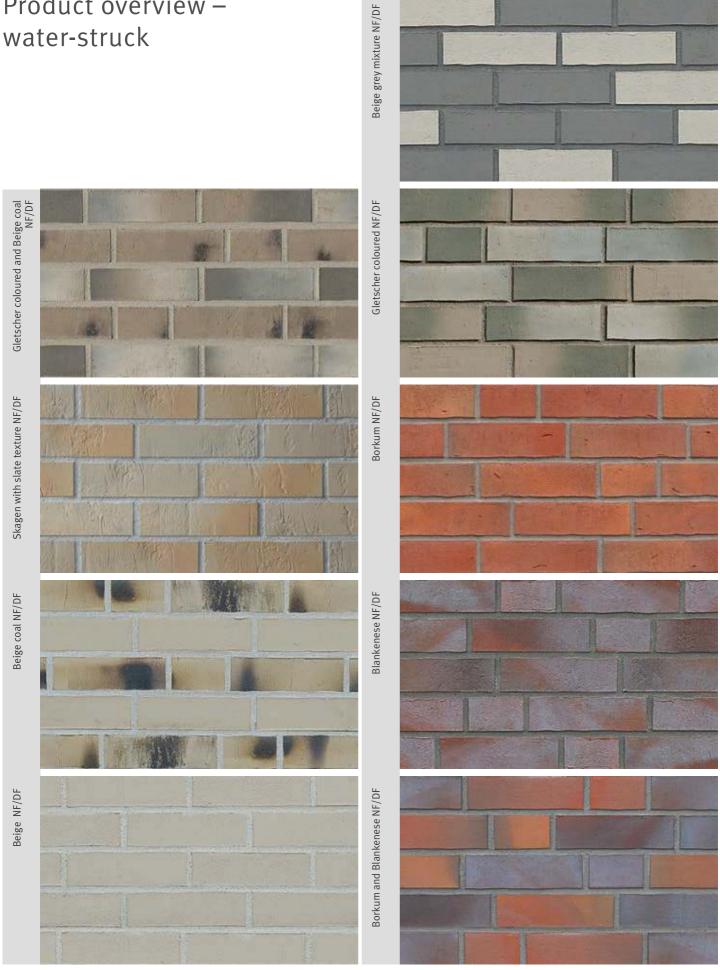


Skagen with slate texture and coal





Product overview -



Änderungen vorbehalten / Subject to change · Drucktechnisch bedingt kann es zu Farbabweichungen kommen / For technical reasons there may be color variations

Brick slips in ABC long format[®].

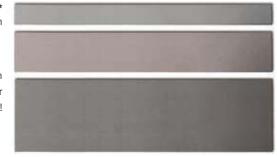






Special format *
600 mm length

* An individual approval for use in outdoor areas is required for lengths over 490 mm!



Atlantis, Long format 365 mm, in random masonry bond



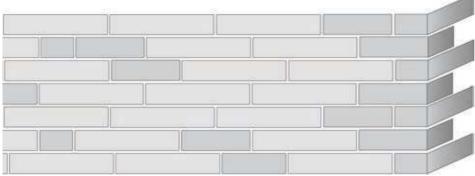
Long format building corners with angles

The basic format corners (365 mm length) are optimally designed with an angle of 240×115 mm. In the random masonry bond, stretchers and headers alternate irregularly.

Masonry pattern in ABC long format[®].

Layout example:

Random masonry bond with 365, 240 and 115 mm.



| ABC lo | ABC long format® in random bond | | | | | | | |
|--------|--|--------------|--------------|--|--|--|--|--|
| Length | Percentage distribution in terms of area | DF pcs/m2 | NF pcs/m2 | | | | | |
| 365 mm | 70% | 30 | 19 | | | | | |
| | | | | | | | | |
| 240 mm | 20% | 12 | 10 | | | | | |
| | | | | | | | | |
| 115 mm | * 10% | 12 | 9 | | | | | |

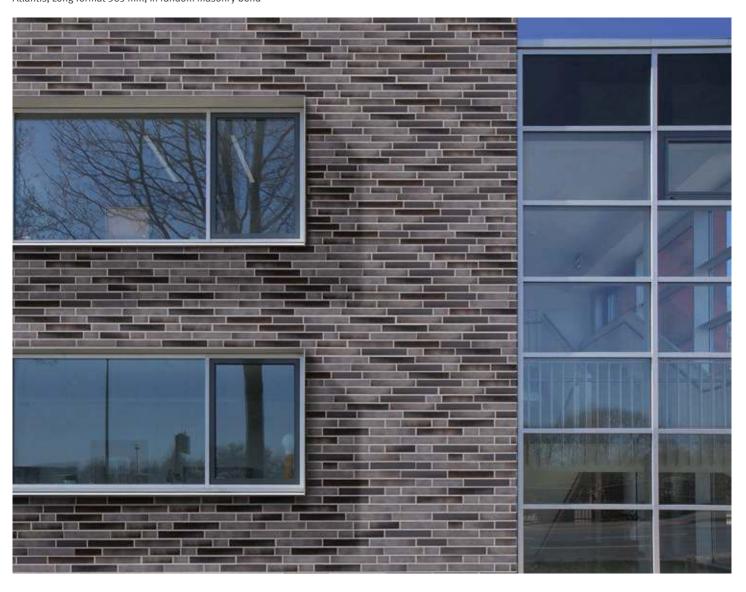
^{*} cut from 240 mm slip on site

Long format

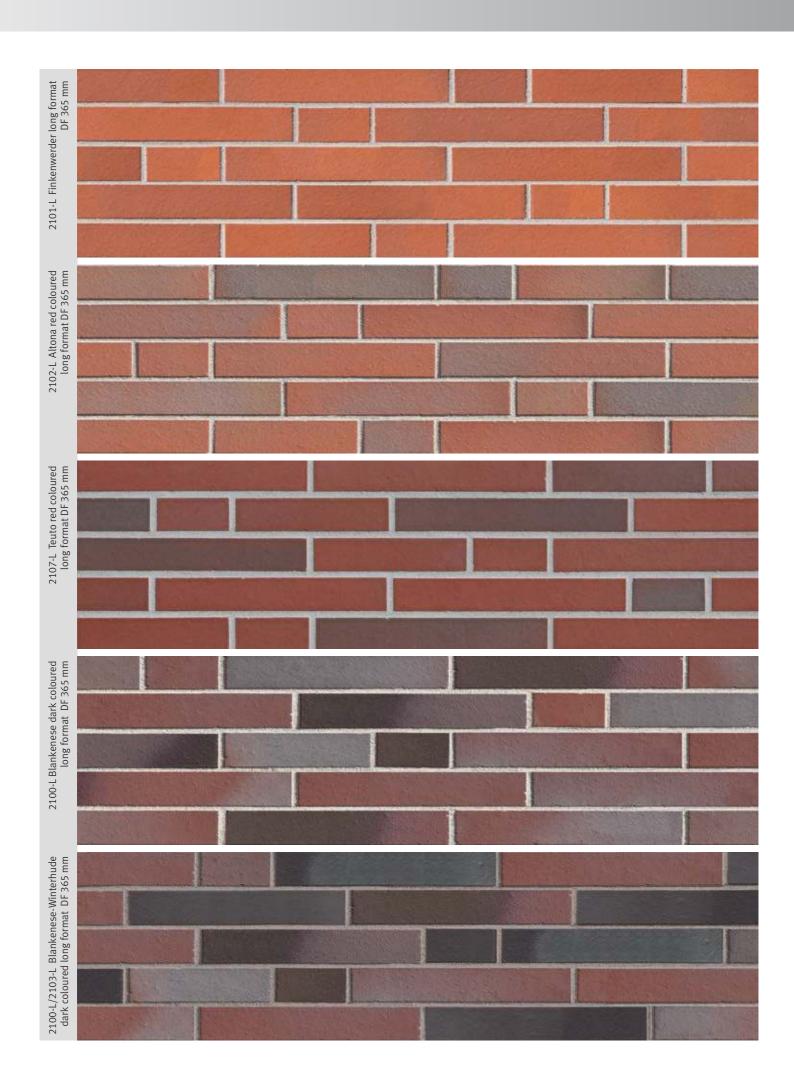
- A. Long format in classic masonry pattern with lengths of 365 mm, 240 mm, 115 mm*.
- B. Long format in 490 mm-grid (pcs per m²) $DF = 32 \text{ pcs/m}^2 - NF = 24 \text{ pcs/m}^2 - 2DF = 18 \text{ pcs/m}^2$
- C. An individual approval is necessary for long formats of more than 490 mm length to a max. of 600 mm length on ETIC systems. Not required when used **in interiors spaces**.

Product overview – Brick slips in ABC long format® 10 - 13,5 mm.

Atlantis, Long format 365 mm, in random masonry bond









| ABC long forma | t brick slips • 10 mm thickness | | | | | |
|----------------------|--|-----------|------------|--------------------------|------------------------|---|
| Also available in 13 | 3.5 mm thickness upon request. | | 71 | Mineral fibre insulation | Rigid polystyrene foam | |
| Colour no. | Designation and colour | Surface | E 2 | base | base | Н |
| 2106-L | Atlantis • long format | smooth | (c) | • | | |
| 1830-L | Texel smooth ● long format | smooth | ● × | < | • | |
| 2108-L | Elmshorn ochre grey • long format | smooth | (c) | • | | |
| 2104-L | Buxtehude • long format | raw brick | k • | • | • | |
| 2102-L | Altona red coloured • Long format | raw brick | (c) | • | | |
| 2100-L | Blankenese dark coloured • long format | raw brick | ● × | • | • | |
| 2101-L | Finkenwerder red• long format | raw brick | (c) | • | | |
| 2103-L | Winterhude black-blue coloured • long format | raw brick | • > | • | • | |
| 2104-L | Buxtehude red brown coloured • long format | raw brick | • 3 | • | | |
| 2106-L | Atlantis grey coloured • long format | raw brick | • > | ¢ • | • | |
| 2107-L | Teuto red coloured ● long format | raw brick | • × | • | | |
| 2100-L / 2103-L | Blankenese-Winterhude • long format | raw brick | • > | • | • | |
| 2110-L | Othmarschen grey coloured • long format | raw brick | • 3 | • | | |
| 2878-L | Amrum seashell white ● long format | raw brick | • ; | | | |

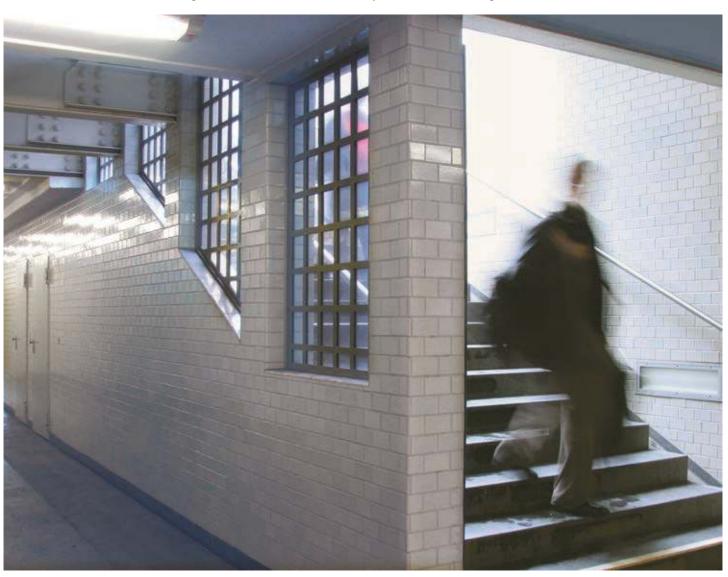
* auf Anfrage lieferbar

Glazed ABC ceramic facade.

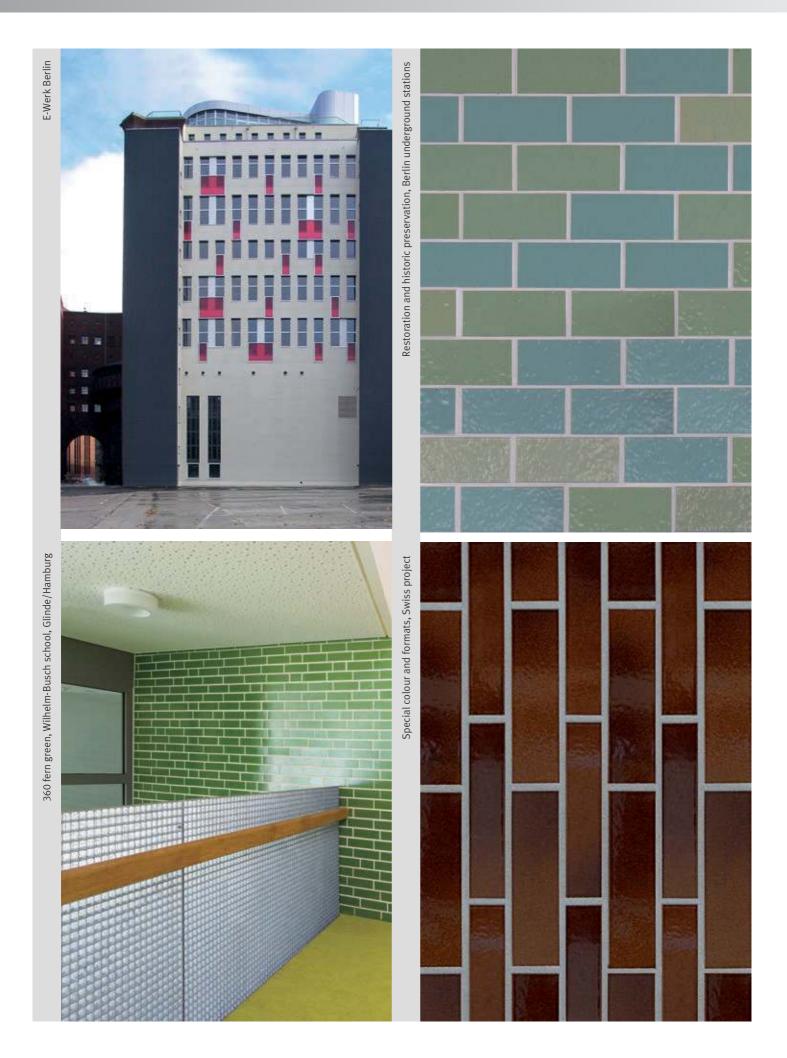




Glazed ABC ceramic facade, "Mitte" underground station / restoration and historic preservation, Berlin underground stations

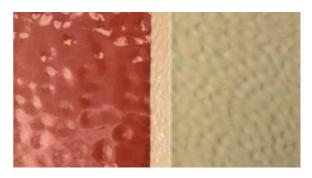


Glazed ABC ceramic facade



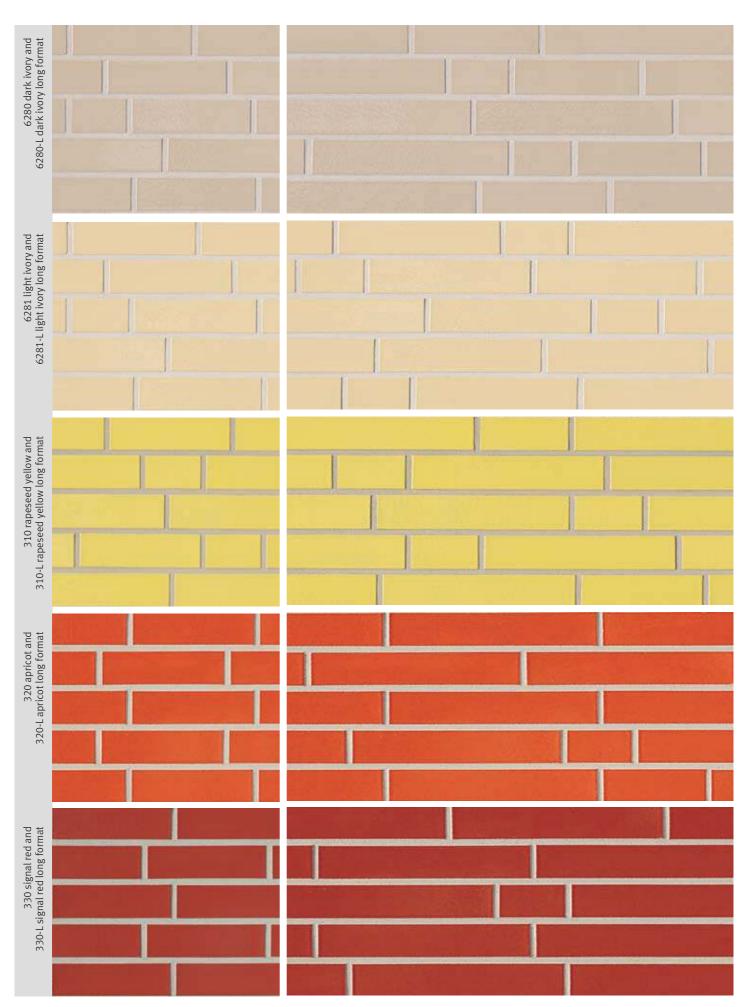
Product Overview – glazed ceramic facade.

Individual object colors with selected surfaces are available by default and in coordination with the planners for special architectural projects. The pictured colors are available in a short time.

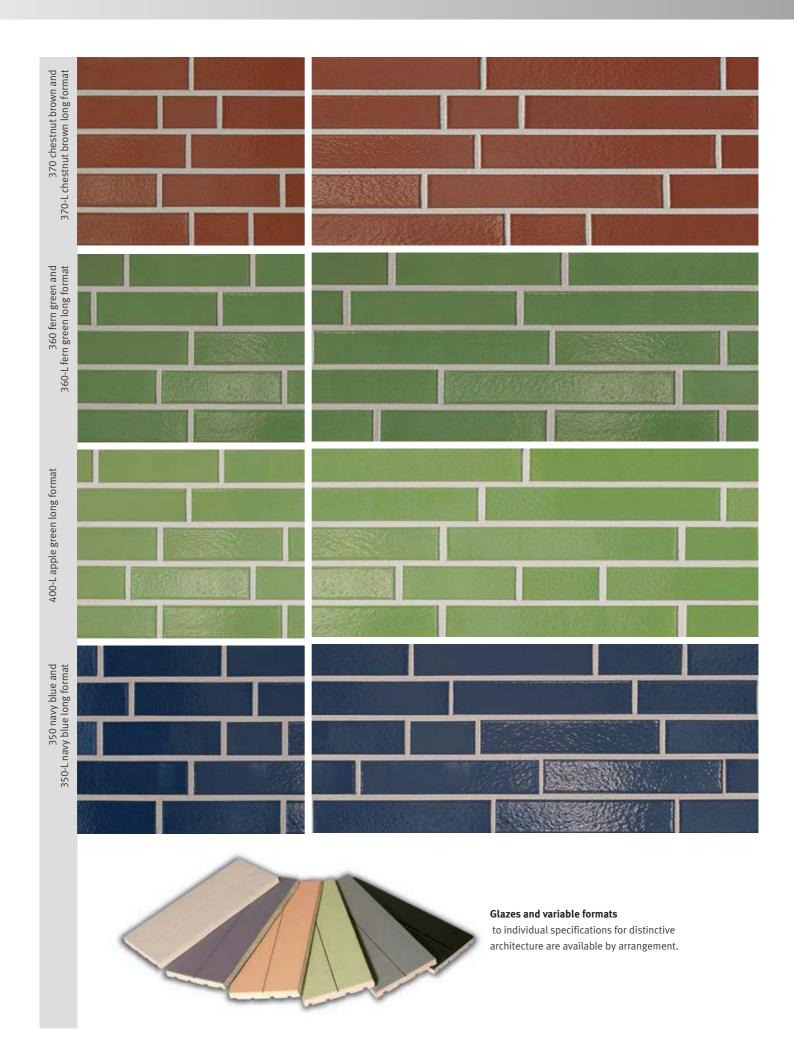


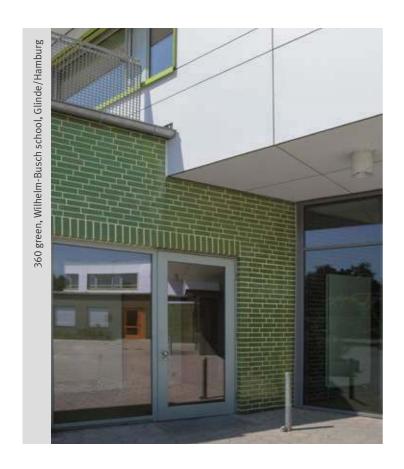
textured surface, high gloss





Änderungen vorbehalten / Subject to change · Drucktechnisch bedingt kann es zu Farbabweichungen kommen / For technical reasons there may be color variations







| Glazed | clinker and angle slips · 1 | 0 mm thickness | | | | | |
|------------|-----------------------------|----------------------------------|---------------------------------|---------------------------------|--------------------------|------------------------|--|
| | 240 mm | 10 mm | 240 x 52 x 10 mm angle slips | 240 × 71 × 10 mm angle slips | Mineral fibre insulation | Rigid polystyrene foam | |
| Colour no. | Designation | Colour | DF DF | N N | Base | Base | |
| 300 | Astral white / smooth | white self-coloured gloss | * | • | • | • | |
| 310 | Rapeseed yellow / smooth | yellow self-coloured gloss | * | • | • | • | |
| 320 | Apricot / smooth | orange self-coloured gloss | * | • | | • | |
| 330 | Signal red / smooth | red self-coloured gloss | * | • | • | • | |
| 340 | Frisian blue / smooth | light blue self-coloured gloss | * | • | | • | |
| 350 | Navy blue / smooth | dark blue self-coloured gloss | * | • | • | | |
| 360 | Fern green / smooth | green self-coloured gloss | * | • | • | • | |
| 370 | Chestnut brown / smooth | brown self-coloured gloss | * | • | • | | |
| 380 | Icelandic grey / smooth | dark grey self-coloured gloss | * | • | • | • | |
| 390 | Deep black / smooth | black self-coloured gloss | * | • | • | | |
| 400 | Apple green / smooth | light green self-coloured gloss | * | • | | • | |
| 6281 | Ivory / light | light yellow self-coloured gloss | * | • | • | | |
| 6280 | Ivory / dark | light ochre self-coloured gloss | * | • | • | • | |
| 6270 | Greenland / smooth | light grey self-coloured gloss | * | • | | | |

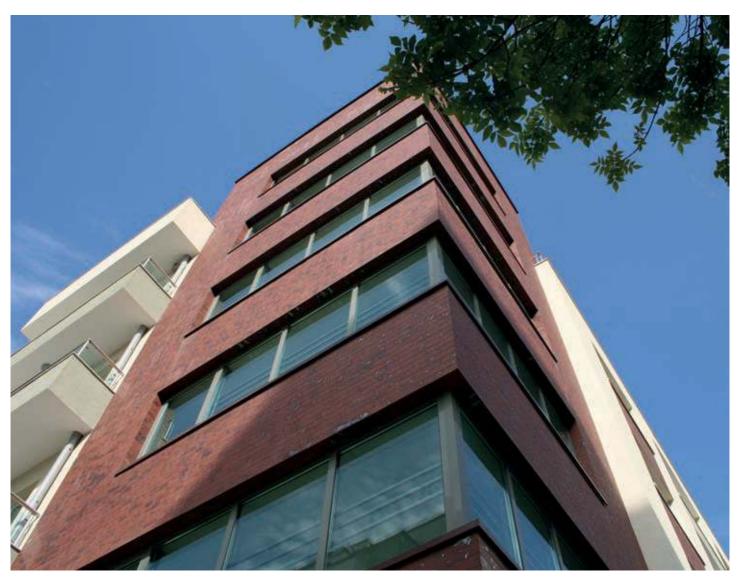
* available upon request

12 mm thick, **glazed ABC clinker and angle slips** always have a **thin-bed back side.** The 13.5 mm clinker slips are available with a **dovetail back side.** Glazed clinker slips for use on **mineral fibre insulation** are available upon request.

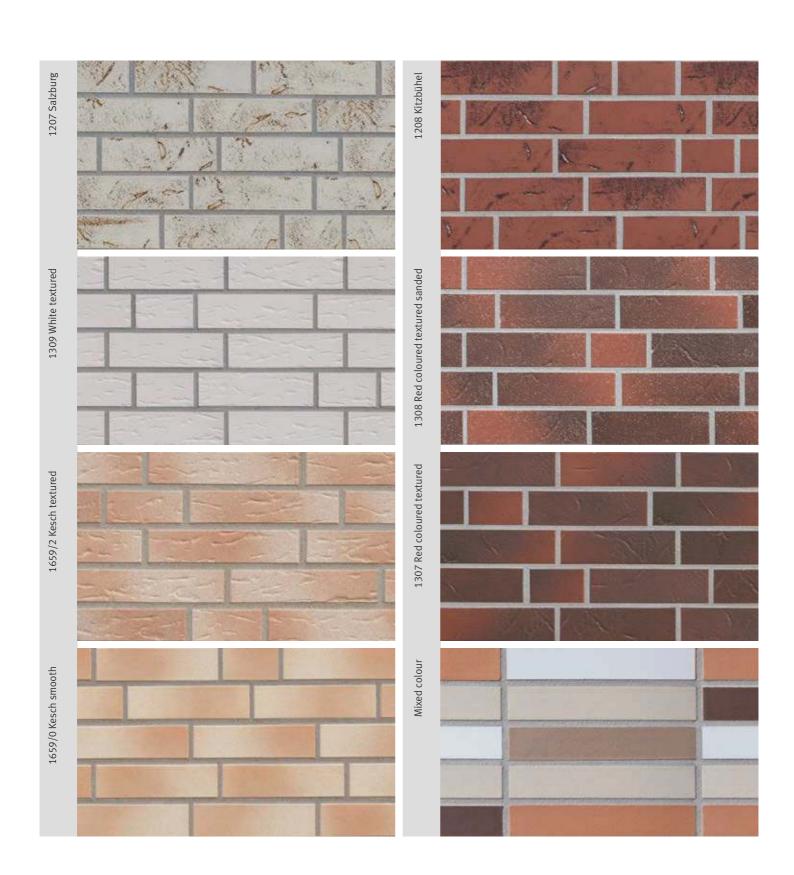
ABC ceramic facade Creativa.

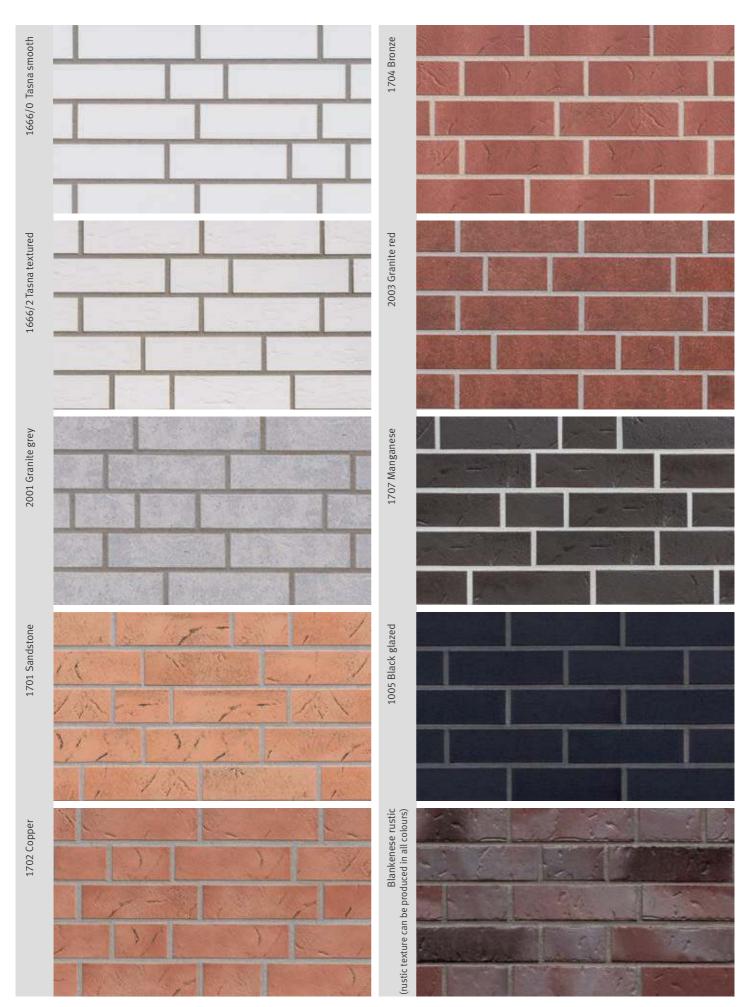


1208 Kitzbühel 1660/0 Cordoba smooth



Product overview - Creativa.





Änderungen vorbehalten / Subject to change · Drucktechnisch bedingt kann es zu Farbabweichungen kommen / For technical reasons there may be color variations



| Creativa glaz | red clinker and angle slips · 10 mm thickness | | | | | | |
|---------------|---|------------------------|------------------------|--------------------------|---|------------------------|--|
| 240 mm | 10 mm | 240 x 52 Angle slip | 240 x 71 Angle Slip | 240 x 115 angle slips | Base Mineral fibre insulation | Rigid polystyrene foam | |
| Colour no. | Designation | DF DF | A A | 2 DF 2 DF | Base Mine | Base | |
| 1207 | Salzburg | * | • | * | • | • | |
| 1208 | Kitzbühel | * | • | * | | • | |
| 1307 | Red coloured textured | • | • | | | • | |
| 1308 | Red coloured textured sanded | * | | | | • | |
| 1309 | White textured | * | • | * | • | • | |
| 1659/0 | Kesch smooth | | * | * | • | • | |
| 1659/2 | Kesch textured | • | * | * | • | • | |
| 1666/0 | Tasna smooth | | | * | • | • | |
| 1666/2 | Tasna textured | • | • | * | • | • | |
| 1701 | Sandstone | * | • | * | • | • | |
| 1702 | Copper | * | • | * | • | • | |
| 1704 | Bronze | * | • | * | • | | |
| 1707 | Manganese | * | • | * | • | • | |
| 2001 | Granite grey | * | • | * | • | | |
| 2003 | Granite red | * | • | | • | • | |
| 1005 | Black glazed | * | | * | • | | |
| | Blankenese rustic (rustic texture can be produced in all colours) | * | • | * | | • | |

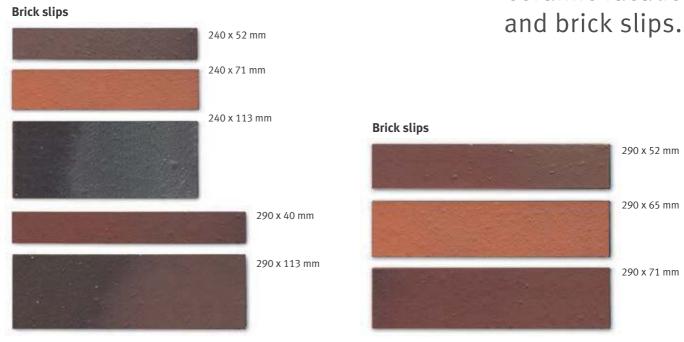
* available upon request

ABC ceramic facade mixed formats.

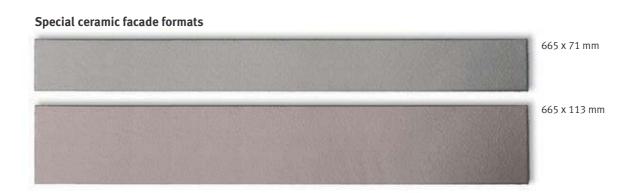
Mixed long formats • light and medium grey matte surface, dark grey gloss



Size overview ceramic facade and brick slips.







Package and delivery data - ABC ceramic facades.



| Packing data | Slips 239/50/13.5 | Slips 239/50/13.5 | Slips 239/69/15 | Corner slips 239/112/69/15 | Slips 239/69/13.5 | Slips 365/52/10 |
|-----------------------|----------------------|----------------------|--------------------|-------------------------------|----------------------|----------------------|
| pcs / sq. m / vert. m | 64 pcs/sq. m | 64 pcs/sq. m | 48 pcs/sq. m | 12 pcs/vert. m | 48 pcs/sq. m | 42 pcs/sq. m |
| kg / sq. m / pc | 21 kg/sq. m | 24 kg/sq. m | 24 kg/sq. m | 0,72 kg/pcs | 21,5 kg/sq. m | 18 kg/sq. m |
| pcs/package | 36 pcs/package | 30 pcs/package | 34 pcs/package | 7 pcs/package | 36 pcs/package | 34 pcs/package |
| sq. m / package | 0,56 sq. m/pack. | 0,46875 sq. m/pack. | 0,708 sq. m/pack. | | 0,75 sq. m/pack. | 0,8 sq. m/pack. |
| sq. m / pallet | 40,32 sq. m/pal. | 33,75 sq. m/pal. | 42,48 sq. m/pal. | | 45 sq. m/pal. | 62,4 sq. m/pal. |
| pcs / pallet | 2592 pcs/pal. | 2160 pcs/pal. | 2040 pcs/pal. | 840 pcs/pal. | 2160 pcs/pal. | 2652 pcs/pal. |
| packages / pallet | 72 packages/Pal | 72 packages/pal. | 60 packages/pal. | 120 packages/pal. | 60 packages/pal. | 78 packages/pal. |
| kg / pallet | 847 kg/pal. | 810 kg/pal. | 1020 kg/pal. | 605 kg/pal. | 968 kg/pal. | 1123 kg/pal. |

Slips are manufactured in pairs. They must be separated on site.

| Slips | Slips DF | Slips DF | Corner slips DF | Slips DF | Corner slips DF | Slips NF | Slips NF |
|-----------------------|-------------------|------------------|------------------|------------------|-----------------|-------------------|--------------------|
| Packing data | | 240/52/8 | 240/52/10 | 240/115/52/10 | 240/52/14 | 240/115/52/14 | 240/71/7 240/71/ |
| pcs / sq. m / vert. m | 64 pcs/sq. m | 64 pcs/sq. m | 16 pcs/sq. m | 64 pcs/sq. m | 16 pc/vert. m | 48 pcs/sq. m | 48 kg / sq. m / pc |
| kg / sq. m / pc | 15 kg/sq. m | 17 kg/sq. m | 0,5 kg/ pc | 25 kg/sq. m | 0,5 kg/ pc | 14,05 kg/sq. m | 14 kg/sq. m |
| pcs/package | 60 pcs/package | 48 pcs/package | 10 pcs/package | 30 pcs/package | 8 pcs/package | 68 pcs/package | 60 pcs/package |
| sq. m / package | 0,938 sq. m/pack. | 0,75 sq. m/pack. | | 0,47 sq. m/pack. | | 1,417 sq. m/pack. | 1,25 sq. m/pack. |
| sq. m / pallet | 67,536 sq. m/pal. | 54 sq. m/pal. | | 33,84 sq. m/pal. | | 85,02 qm/Palette | 75 sq. m/pal. |
| pcs / pallet | 4320 pcs/pal. | 3456 pcs/pal. | 1200 pcs/pal. | 2160 pcs/pal. | 768 pcs/pal. | 4080 pcs/pal. | 3600 pcs/pal. |
| packages / pallet | 72 packages/pal. | 72 packages/pal | 120 packages/pal | 72 packages/pal | 96 packages/pal | 60 packages/pal | 60 packages/pal |
| kg / pallet | 1013 kg/pal. | 918 kg/pal. | 600 kg/pal. | 846 kg/pal. | 384 kg/pal. | 1195 kg/pal. | 1050 kg/pal. |

Slips are manufactured in pairs. They must be separated on site.

| Riemchen | Riemchen NF | Eckriemchen NF | Riemchen 2DF | Eckriemchen 2DF | Riemchen HF | Eckriemchen HF | Riemchen NF | Eckriemchen N |
|-----------------------|---------------|----------------|-------------------|-----------------|--------------------|----------------|-----------------|----------------|
| Verpackungsdaten | 240/71/10 | 240/115/71/10 | 240/115/10 | 240/115/113/10 | 220/65/14 | 220/105/65/14 | 240/71/14 | 240/115/71/14 |
| pcs / sq. m / vert. m | 48 pcs/sq. m | 12 pcs/vert. m | 33 pcs/sq. m | 8 pcs/vert. m | 56 pcs/sq. m | 13 pcs/vert. m | 48 kg/sq. m/pc | 12 pcs/vert. m |
| kg / sq. m / pc | 18,5 kg/sq. m | 0,6 kg/pcs | 20 kg/sq. m | 1,1 kg/sq. m | 26 kg/sq. m | 0,9 kg/pcs | 29,4 kg/sq. m | 0,9 kg/pcs |
| pcs/package | 48 pcs/pack. | 10 pcs/pack. | 24 pcs/pack. | 20 pcs/pack. | 24 pcs/pack. | 8 pcs/pack. | 24 pcs/pack. | 8 pcs/pack. |
| sq. m / package | 1 sq. m/pack. | - | 0,727 sq. m/pack. | - | 0,4286 sq. m/pack. | - | 0,5 sq. m/pack. | - |
| qm / pallet | 60 sq. m/pal. | - | 52,344 sq. m/pal. | - | 32,145 sq. m/pal. | - | 37,5 sq. m/pal. | - |
| pcs / pallet | 2880 pcs/pal. | 1200 pcs/pal. | 1728 pcs/pal. | 720 pcs/pal. | 1800 pcs/Pal | 768 pcs/pal. | 1800 pcs/pal. | 768 pcs/pal. |
| packeges / pallet | 60 Pakete/Pal | 120 pack./pal. | 72 pack./pal. | 36 pack./pal. | 75 pack./pal. | 96 pack./pal. | 75 pack./pal. | 96 pack./pal. |
| kg / pallet | 1110 kg/pal. | 720 kg/pal. | 1047 kg/pal. | 792 kg/pal. | 836 kg/pal. | 691 kg/pal. | 1103 kg/pal. | 691 kg/pal. |

Slips are manufactured in pairs. They must be separated on site.

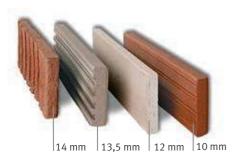
Specifications.



Mortar contamination

Standard clinker cleaner must be used for cleaning mortar contamination from installed areas. In every case, the effectiveness and suitability of this cleaner must be tested on the building in advance.

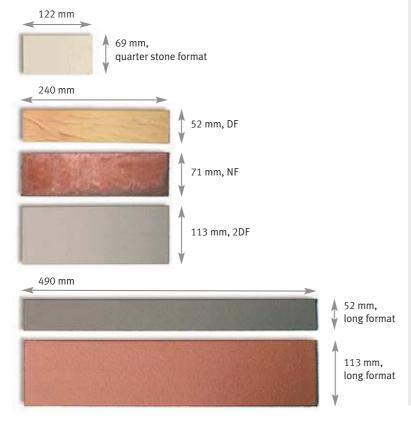
We recommend: Remmers-Klinkerreiniger Combi WR, diluted 1:15.



Material thicknesses

ABC clinker and angle slips are available in 10 mm, 12 mm, 13.5 mm and 14 mm thicknesses.

Formats



Requirements for ceramic facade on external thermal insulation composite systems.

Proven by test certificates: ABC ceramic clinker slips comply with building regulation specifications.

- 1. DIN EN 771-1/May 2011, Part 1 regulates:
 - frost resistance
 - and additional properties
- 2. According to DIN 18515, Part 1 for exterior wall claddings, the following apply:

Section 1, area of application, rules:

- slip area ≤ 0.12 m²
- Slip side length ≤ 0.49 m
- Slip thickness ≤ 15 mm

Section 4.3, building materials, rules:

- a maximum pore radius over 0.2 μm (2 X 10-4)
- an adhesion layer pore volume of at least 20 mm³/g
- 3. According to specifications of the German Institute of Building Technology (DIBt), Berlin, the following apply:
- maximum water absorption of 3%, with mineral fibre insulation
- maximum water absorption of 6%,
 with rigid polystyrene foam insulation panels

Clinker slip requirement

The stated clinker slip quantities per m² include joints (12 mm).

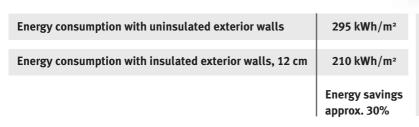
quarter brick format

| | 122 x 69 mm | 96 pieces pro m ² | |
|---|-------------|------------------------------|------------------------------|
| _ | DF | 240 x 52 mm | 64 pieces pro m ² |
| - | NF | 240 x 71 mm | 48 pieces pro m ² |
| _ | 2DF | 240 x 113 mm | 33 pieces pro m² |
| - | long format | 365 x 52 mm | 43 pieces pro m ² |
| _ | long format | 490 x 52 mm | 32 pieces pro m ² |

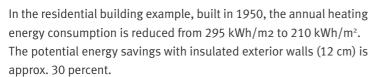
Warm a wrapping saves heating costs.

FROM OLD BUILDING TO ENERGY-SAVING PROPERTY.

Example: Residential building built in 1950Uninsulated exterior walls compared with exterior walls with 12 cm of thermal insulation

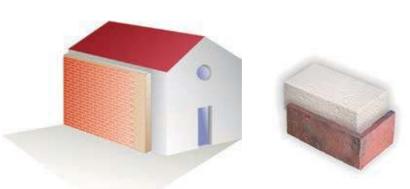


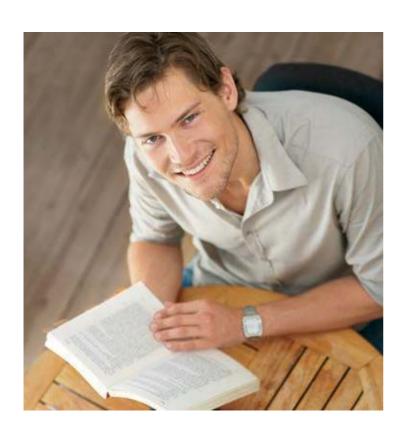
Thermal insulation of the exterior walls significantly lowers consumption of heating energy.



With every additional energy-saving measure, such as installation of thermally insulated windows and roof insulation, the savings impact increases.

In addition to the significant energy savings of approx. 30 percent in the residential example with $120 \ m^2$ of living area, the annual output of environmentally harmful CO^2 is reduced by approx. $71 \ kg/m^2$. You can find more information about thermal insulation composite systems (ETIC systems) at: www.heizkosten-einsparen.de





Helpful building renovation partners.

An energy expert can lead you safely through the thermal jungle.

Make the correct energy-saving decisions - nowadays, an expert is indispensable.

Advice can be obtained from architects, engineers, insulation experts and energy consultants. The district and municipal administrations and environmental offices in your region have lists of local energy consultants and will be happy to provide information.

You can also find a list of insulation experts online. www.energie-effizienz-experten.de/expertensuche/

THE STATE PROMOTES THERMAL INSULATION OF EXTERIOR WALLS

Energy savings consultation

The federal government promotes energy consultation for residential buildings in accordance with the Federal Ministry for Economic Affairs and Energy directive concerning promotion of on-site energy consultation for residential buildings - On-site consultation - dated 29/10/2014 (German Federal Gazette BAnz AT 12/11/2014). Energy-oriented renovation of residential buildings plays a key role in the success of the energy system transformation. The objective of the support is to trigger private investments that lower energy consumption in residential buildings and reduce environmental pollution, especially CO² emissions. This supports the energy policy goal of a largely climateneutral building stock in 2050.

Experts

Get advice from an expert. You will need one anyway, if you apply fora grant from the KfW. This also applies to individual measures such as exterior wall insulation. We also recommend that you consult an expert for qualified construction monitoring, which can also be subsidized.

Energy certificate for buildings

Like a wanted poster, the energy certificate documents the energy standard of the building. The owner must present an energy certificate when renting or selling an apartment or house. Potential buyers or tenants are thus informed about the anticipated amount of energy costs, which represent an ever-increasing percentage of housing

costs in unrenovated buildings. Non-residential buildings (such as offices, administrative buildings, commercial or shopping centres) require a so-called "energy certificate for non-residential buildings".

Funding programmes for energy oriented renovation

There are numerous federal and regional funding programmes. They should be scrutinised, based on the latest information, because they change very quickly. References to important current federal funding programs are listed below:

Energy-efficient renovation - 151/152 loan

For renovation to KfW efficient house standard or individual energy oriented measures

www.kfw.de/inlandsfoerderung/Öffentliche-Einrichtungen/ Wohnwirtschaft/Finanzierungsangebote/Energieeffizient-Sanieren-Kredit-(151-152)/

IKK - Energy oriented city renovation - Energy efficient renovations for municipalities that renovate buildings

www.kfw.de/inlandsfoerderung/Partner-der-KfW/Kommunen/Relevante-Förderprodukte/218.html Energy-efficient renovation - construction monitoring For design and construction monitoring by experts www.kfw.de/inlandsfoerderung/Privatpersonen/Bestandsimmobilien/Finanzierungsangebote/Energieeffizient-Sanieren-Baubegleitung-(431)/



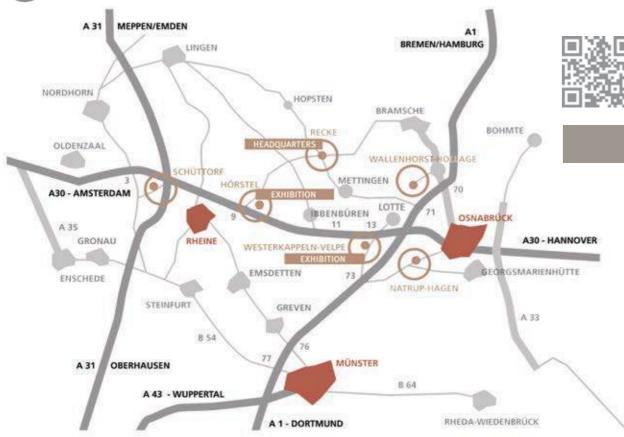
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