

Urban cladding tile

New creative solutions with natural clay





Natural and efficient

The Urban cladding tile combines the efficiency and functionality of curtain wall façades with the naturalness and warmth of clay as a building material. With their colours, scale patterns and surfaces, tile façades give urban space more texture and make it more vibrant.

Tiles are among the oldest building materials in the world. They have always been an important part of beautiful, solid and durable structures in our cities and settlements. Our Urban cladding tile translates this cultural and historical heritage into contemporary architecture. The tiles give both the building and the surrounding space the texture and natural feel of the fired clay. And like other natural building materials, the tiles exist within and in harmony with their environment. Light and weathering provide an attractive patina over time and allow the façade to age beautifully. With the Urban cladding tile, we can create exciting work and living spaces where people feel at home.

A handwritten signature in black ink, appearing to read 'M. Fritsche', with a stylized, flowing script.

Michael Fritsche, Managing Director



Created in response to an urban development issue

The inspiration for the development of the Urban cladding tile came from a sensitive construction project at Krøyers Plads in Copenhagen, a special waterfront location between historic warehouses, the Royal Theatre and Freetown Christiania. For more than a decade, a wide range of approaches were discarded until a new, participatory process led to a satisfactory urban development project and broad acceptance among the population. The cladding tile developed especially for this purpose played a key role in this.

Three buildings incorporate the volume and structure of the neighbouring historic storehouses, their kinked walls and roof surfaces, which are often interrupted, are reminiscent of the gables and dormer windows of the surrounding houses. The façade cladding also ties in with this image. This is because the Urban cladding tile gives the modern, rear-ventilated façade the aesthetics of fired clay and works in perfect harmony with traditional exposed brickwork.

Vibrant surface

The special quality of this lies in the roughened surface, the irregularly spread engobe and the clay coloured with iron oxide showing through beneath this. The result is naturally coloured tile surfaces with slight irregularity that have a lively quality and that make people feel comfortable.

Walls and roofs

Since the Urban cladding tile is used for both walls and roofs, the new buildings blend in harmoniously with the characteristic surrounding roof landscape of the famous Copenhagen quarter. At the same time, the tile shell surrounds the entire building structure like a protective skin.

Sustainable construction

Krøyers Plads is the first residential project to be awarded the Nordic Swan, the particularly strict ecolabel of the Scandinavian countries. The lightweight Urban façade plays its part with its low weight, the reduced need for mortar and concrete, and efficient thermal insulation.

Krøyers Plads

The 20,000 m² space is home to more than 100 apartments and numerous small businesses. This mixture makes Krøyers Plads a popular and lively place for the neighbourhood residents as well as other Copenhageners and tourists.



Atmosphere and quality of life

The open squares and walkways between the tile façades make Krøyers Plads an oasis for the residents and the numerous passers-by. The building structures, façades and naturalistic planting scheme complement each other excellently and ensure that people feel at home here.

Krøyers Plads, Copenhagen
Cobe Architects
VLA Vilhelm Lauritzen Architects
Completion in 2016







The Vogt house, Allschwil, Switzerland
Completion in 2020

Sacred building

New Vennesla Church, Norway
LINK Arkitektur
Completion in 2021



Sustainability in the long term

When constructing the new type of supermarket commissioned by the European discounter Netto, the Urban cladding tile was used not only for aesthetic reasons, but also, above all, to meet the particularly high demands on efficiency and sustainability. The construction has been awarded gold certification by the German Sustainable Building Council (DGNB).

In addition to life cycle assessment benefits such as regional raw materials and low transport weight, durability and reuse are key criteria. Urban cladding tiles last for over 100 years. But no supermarket, and hardly any other commercial building, ever lasts that long. However, as the cladding tiles are only screwed on rather than mortared, they can be removed and used for new building projects with little effort and no residue. Urban cladding tiles make a circular economy possible in construction.





Netto supermarket, Horsens, Denmark
C.F. Møller Architects
Completion in 2020

Natural raw material

180 million years ago, a thick layer of the finest sediment was deposited at the bottom of the primordial sea of Tethys: known as Opalinus Clay. Today we extract clay from this layer at our Seewen pit near Laufen. Together with septaria clay and loess clay from the neighbouring Saal and Müsch pits, it provides the raw material for the Urban cladding tiles.

This clay meets many of the requirements for a sustainable building material. It is a pure natural product that is extracted in the immediate vicinity of the brickyard, thus ensuring short transport routes. Almost no waste is generated during production because trim and rejects can be returned wholly to the production cycle. The products themselves are extremely durable and reusable. After extraction has finished, the pits are carefully recultivated and re-integrated into the landscape as part of nature. Biodiversity is above average in both our active and rewilded pits.

1 Active clay pits form diverse and rare ecosystems. The extraction lasts only a few weeks a year; the rest of the time nature has free rein.

2 The rewilding process has begun, the original terrain profile has been restored and nature is taking over. Ponds form in uneven areas and serve as a habitat for amphibians, while wildflowers and grasses sprout from the nutrient-poor soil and provide food and shelter for wild bees, butterflies and many other insects.

New habitats

Our pits play an important ecological role even during the extraction process: the temporary ponds that keep appearing, uncultivated land and ruderal areas form valuable habitats for plants and animals that have become rare here. The Saal pit is now even home to an amphibian sanctuary of national importance.

1



2



From raw clay to finished tile in 30 days

In principle, we have known how to make tiles for millennia: shaping, drying, firing. In practice, the quality depends on many details. First of all, you need a clay with consistent characteristics: a high plasticity when moulded combined with a high level of dimensional stability during firing. For this purpose, different clay types from several pits with their different grain sizes are combined together several times, finely mixed with rollers weighing several tonnes and uniformly moistened for three weeks in the large sump house. Only then is the clay extruded in the extrusion press, cut into tiles and moulded into its final shape.

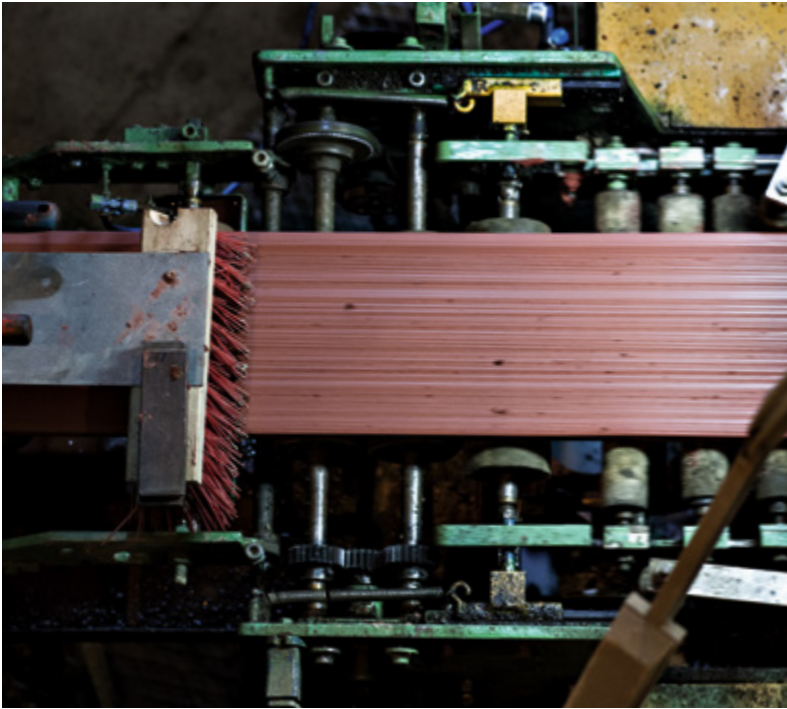
The moulded tiles are dried uniformly and without deformation in around 70 hours. They then move slowly through the tunnel kiln in special “cars”. In these cars, they cover 100 metres in about two days, and are subjected to a temperature of 1020°C in the middle of the tunnel. Production is carried out as continuously as possible, with constant utilisation for maximum energy efficiency. This means that the kiln burns around the clock and is only switched off for maintenance every five years. The waste heat is used to dry freshly pressed tiles.



1 Before the raw material is prepared for processing in the plant, it is still easy to distinguish between the different types of clay. Crushing and mixing results in a very fine, homogeneous mass.

2 Immediately after extrusion, one side of the strand runs under a brush. This is where the “brushed” surface is created.

3 The blanks are on their way to be dried.



2



3



Urban L



Urban U



Urban T

Three profiles
Two surfaces
Four colours

Urban L and Urban U

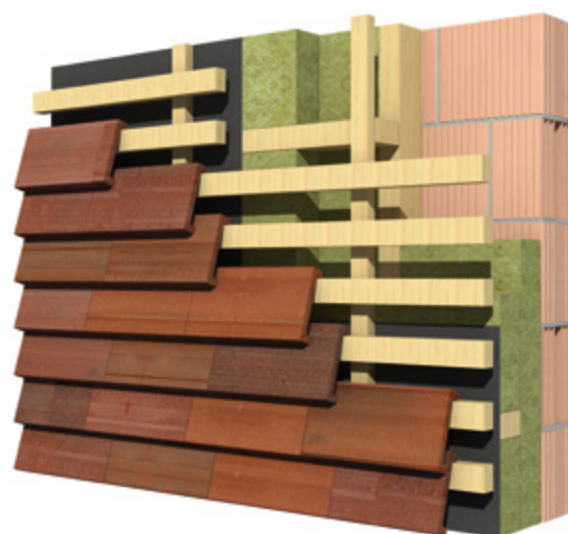
Rugged surface

The extruded strand of clay is roughened on the surface irregularly using a special rotating brush. This creates a vibrant façade and emphasises the naturalness of the material.



Substructure for Urban L and U

Both profiles can be screwed onto traditional support battens made of wood or aluminium. The U-profile makes the material look thicker and thus produces more pronounced lines of shadow at the headlaps. With this system, each cladding tile is fastened with two screws. The slat spacing can be selected individually.



Urban T

Brushed surface

After extrusion, a brush streaks the surface of the tile evenly and gives it a fine texture. This makes the surface smoother than with the “rugged” process and creates a somewhat more even overall appearance to the façade.

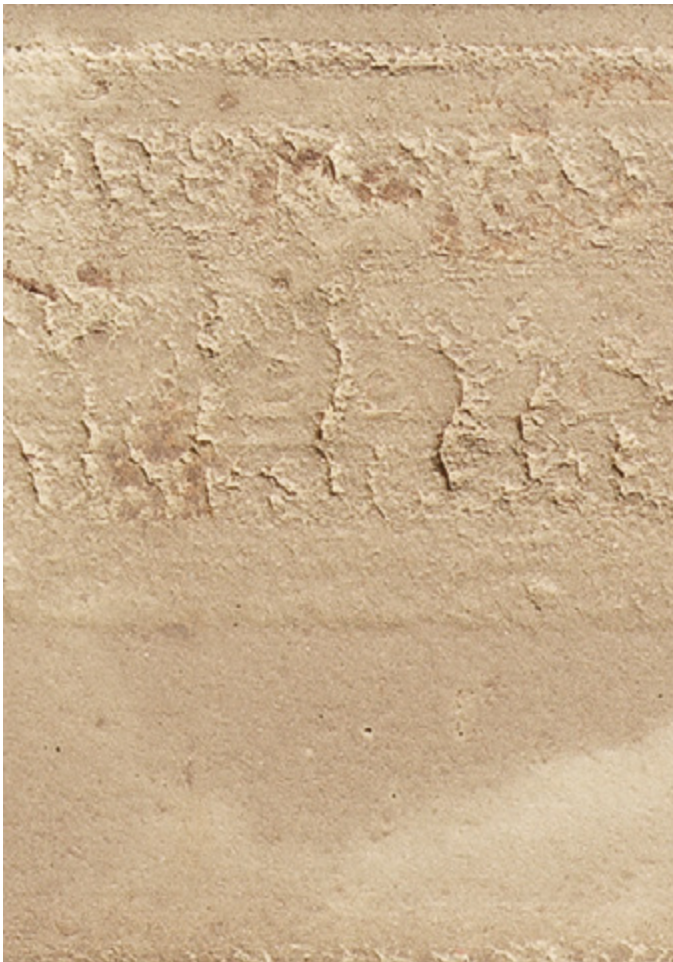


Substructure for the Urban T

The substructure for the Urban T consists of a multifunctional support profile made of aluminium and EPDM. The integrated rubber strip secures the tile with counter pressure from above. The cladding tiles can thus be easily inserted into the support profiles without tools and can even be replaced individually if necessary. The support profile itself remains invisible, is weather-resistant and can make installation around three times faster than with conventional screw fixtures.



Four shades, coloured all the way through



Frederiksberg

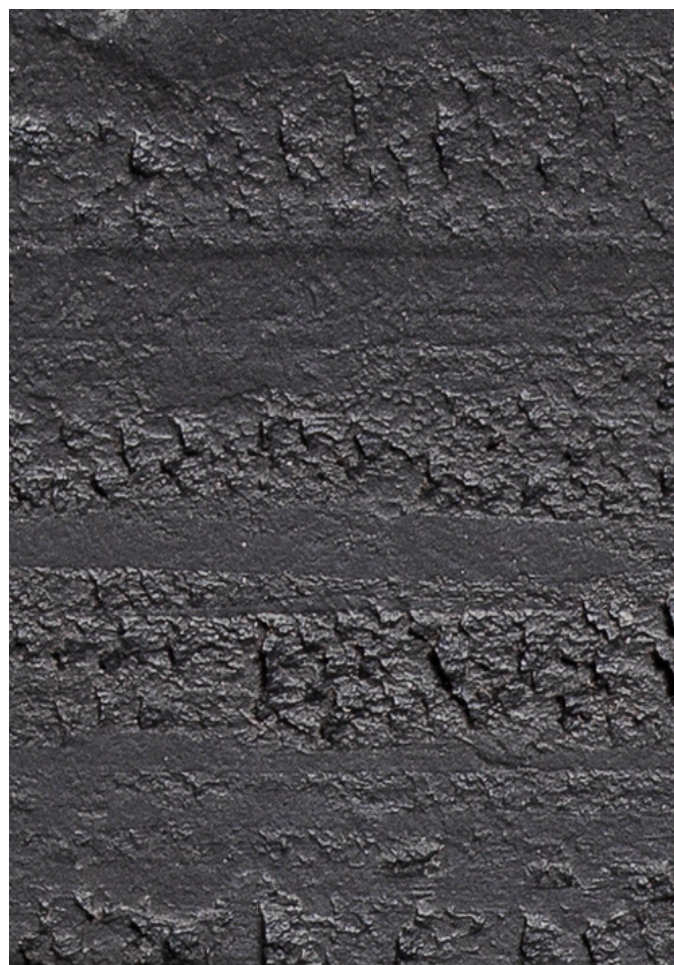


Christianshavn

The Urban cladding tile is available in four different shades. The tiles are coloured with varying amounts of iron oxide or manganese oxide – the more is added, the darker the colour. The solid-coloured nature of the clay can be seen not only on the cut edges and joints, but also in small cracks on the roughened surface. Together with the engobe film then applied on top, the final appearance of complex colour is created. In the Christianshavn variation, the engobe is not applied uniformly, but only in places, which makes the façade surface appear even more lively and natural.



Holmen



Nordhavn

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**If you have any questions, our
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Zürcher Ziegeleien offers ceramic solutions for the entire building envelope. For over 150 years, we have been making homes more natural and building easier with our clay building materials. We use a simple raw material to develop sophisticated systems for roofs, walls and façades. We have been part of the swisspor Group since 2020.



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