Turn old into new: Façade modernisation with Argeton® terracotta façade panels

Sustainable solutions for building renovations

Argeton

The Argeton® terracotta façade panel

In a roller oven specially designed for façade panels, the extruded panels are individually and carefully matched to the desired colour shade and fired at high temperatures. A special calibration device ensures the exact dimensional accuracy of the Argeton® terracotta panel panels - essential for the precise joint grid that determines the overall impression of the façade.

Strong performance

When it comes to sustainable façade modernisation of residential buildings, the Argeton® terracotta façade is always an excellent choice. As a back, ventilated façade system, it offers a sophisticated system with optimal building physics, a long life expectancy and a high energy-saving potential.

Strong convincing arguments:

- **Design diversity**
- **High economic efficiency**
- **High breaking strength**
- **Maintenance-free**
- **Sustainable**
- **Frost resistance**
- **Building material class A1, not flammable**
- **Significant improvement in sound insulation**
- **Hidden, invisible fixing system**

Each terracotta tile is fixed individually with clips. The upper and lower joints of the panels overlap in such a way that the clips are not visible from the outside.

Object: Renovation in a high-rise building: Ekla tower in Brussels with Argeton® Tampa panels in various colours.

An all-round professional solution.

The unadulterated power of the ceramic colours and an unobtrusive elegance characterise this solution.

The colour range, consisting of 10 Standard and 17 Standard Plus colours, contains the contemporary colours of façade design. Sophisticated firing processes and special clays are components in the production of these natural ceramic firing colours. They are characterised by high brilliance and weather resistance. In addition, 40 glazes and 41 digitally engobed designs are available for your creative ideas. You have a free choice of design!

With the Argeton® façade panel, you underline the diversity of modern architecture.

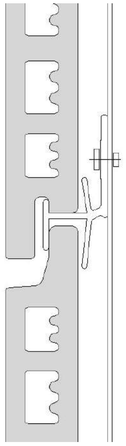
The system of back ventilated facade

Argeton® elements are extruded terracotta panels made of different coloured clays, which are usually fixed to a substructure made of a seawater-resistant aluminium alloy.

This elegantly compensates for possible unevenness of the exterior walls and allows for thick thermal insulation layers as required.

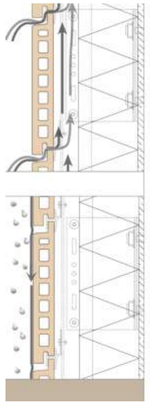
A rear ventilation gap is arranged between the Argeton® terracotta panel and the thermal insulation, which allows moisture to escape. The air circulation ensures that the moisture dries quickly. The thermal insulation remains permanently protected and fully functional.

Another strong argument in favour of moderation with Argeton® is the fact that it can be installed regardless of the weather. Work on the façade is not dependent on the season and enables continuous construction progress.



For us a matter , of course: no visible panel clips with Argeton®.

Technically varied - basic concept and building physics



The principle of a rear-ventilated Argeton® façade is that the thermal insulation and façade cladding are structurally separated from each other by the rear ventilation gap. This results in a long service life combined with optimum energy efficiency and extraordinary protection against external weather influences.

The technical values of the Argeton® tile are significantly above the requirements and are constantly tested within the scope of in-house and external monitoring.

- **High breaking strength**
- **Low dimensional tolerances**
- **Frost resistant according to EN ISO 10545-12**
- **Building material class A1, non-flammable**
- **Ball impact resistant**
- **Improvement in sound insulation of up to 13 dB**

The Argeton® façade offers economic and sustainable solutions with design diversity from an ecological point of view.

Tested safety

The Argeton® façade is ball impact resistant

Argeton® GmbH was the first manufacturer of ceramic façades to pass the test for ball impact resistance according to DIN 18032-3. The high breaking strength of the Argeton® panel as well as the fixation clip B/85, which can be attached to the support rails without additional tools, are convincing in the long term. The Argeton® façade holds up without any problems. This makes the use of the ceramic façade particularly suitable for public buildings such as schools.

Sound insulation

Significant improvement in sound insulation possible

According to the WHO Guideline on Environmental Noise for the European Region, one of the most significant negative impacts is the rapidly increasing noise pollution. Today, the noise level generated by road traffic is already above the maximum of 53 dB(A) (day-evening-night index) recommended by the WHO and therefore represents a health and social problem.

Compared to other façade systems, the Argeton® façade can contribute to an increase in sound insulation improvement of 13 dB due to its design and properties. This not only reduces the perceived external noise level to the inside, but also greatly improves the quality of living or working.

Sustainability

Environmentally conscious production

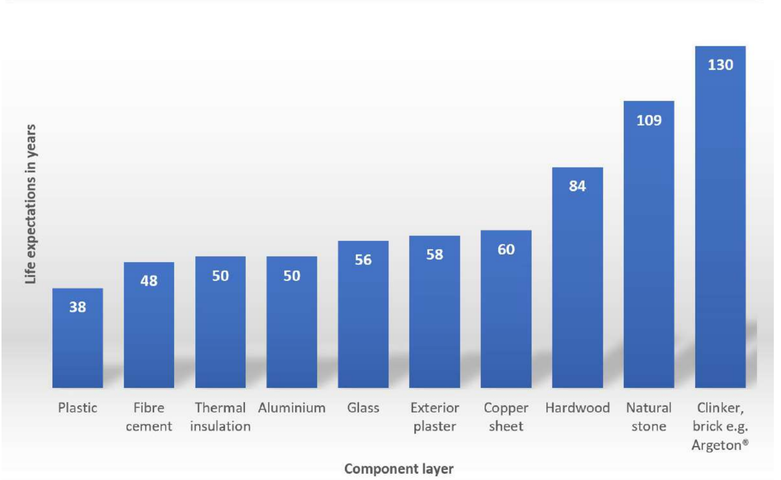
Clay: our environmentally friendly resource for what we do well. Building solutions with a minimal ecological footprint.

Excellent carbon footprint in the creation of durable, robust façades. Thanks to the properties of clay, Argeton® terracotta facades are maintenance-free, modern and timeless at the same time. The panels are fully recyclable, confirmed by certification according to ISO 14025 and EN 15804. The environmental product declaration additionally proves and confirms the sustainability of Argeton® products.

We guarantee that natural habitats are created where clay has been extracted from natural resources. The Argeton® production site is located directly next to the clay mine, so that the transport route of the raw material is minimal.

Resource-friendly handling in production the consumption of raw materials is reducedthrough the admixture of ceramic residual material.

Life expectations of components and building component layers



Source: Vgl. Lebensdauer von Bauteilen, Zeitwerte; BTE Experte, Stand März 2008, URL: bte-mitglieder.de, Download 19.07.2021

Recycling and disposal

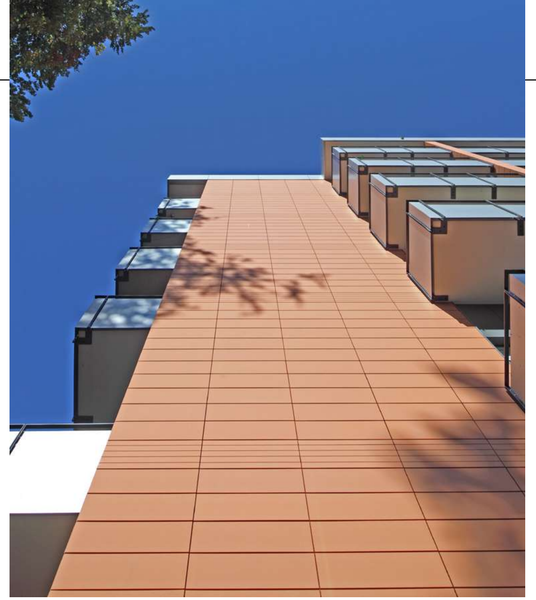
The system of the rear ventilated façade makes it possible to separate the individual system components without sorting. This means that the brick material can be classically recycled (disposal class 170102 bricks) and the elements of the substructure can be recycled.

Renovated and sustainable references

Apartment building Mettmann

Two apartment buildings in Mettmann were successfully modernised. The accompanying architect Kettler says: "The material and colour concept of the orange clay tiles are highly accepted by the residents and the neighbourhood. The engobed standard surface is dirt-repellent and the orange colour corresponds excellently with the bronze-grey aluminium composite and silver-coloured balcony slabs". The new building envelope underlines the main use of the building as a residence and, after the renovation, appears friendly, fresh and inviting.

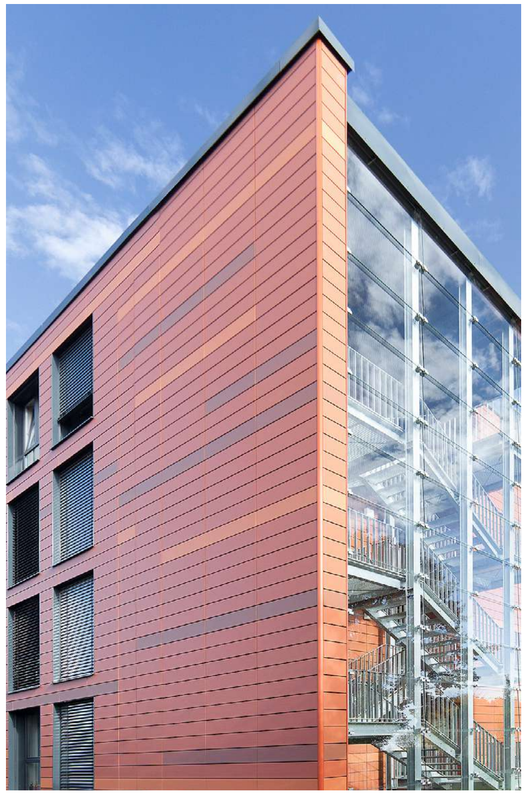
The refurbishment of the Mettmann residential complex followed an overall energy concept. In addition to the renovation of the building envelope in 2011, a large part of the windows, the flat roofs, basement ceilings and the heating system of the swimming pool were also renewed between 2000 and 2013. The new energy certificate was issued in 2014. Compared to 2007, the primary energy demand dropped from 370 kWh/(sqm.a) to 153.5 kWh/(sqm.a), the final energy demand from 123 kWh/(sqm.a) to 54.0 kWh/(sqm.a) and the CO_2 emissions from 84.2 kg/(sqm.a) to 40.5 kg/(sqm.a). The renovation measures commissioned by the owners' association have thus almost halved all values, emphasises architect Werner Kettler, and the increase in value for the owners can also be quantified.
"The sales revenues have doubled!"



Student residence Minden

Another successfully completed modernisation project with Argeton® is the student residence in Minden. After weighing up the advantages of different renovation options, the planner wanted to renovate the façade of the student residence with a terracotta facade. This option turned out to be a time-saving solution compared to classical brickwork, as statically adjusted brackets would have been required for the latter. The Argeton® façade solution allowed the planners to quickly and easily install a substructure directly to the existing rear masonry and lay the Argeton® façade panels on top.

An all-round quick and simple solution that is both economical and recyclable.



Colour overview

Choose between our standard (plus) colours in almost unlimited variety.

Salmon/Pastel Red Lachs-/Pastellrot	**Tuscan Red** Toskanarot	**Natural Red** Naturrot	**Tizian Red** Tizianrot	**Burgundy** Burgunderrot	
Light Brown Hellbraun	**Coffee** Kaffeebraun	**Red Brown** Rotbraun	**Chocolate** Schokobraun	**Bright Grey** Hellgrau	**Silver Grey** Silbergrau
Light Grey Lichtgrau	**Platinum Grey** Platingrau	**Granite Grey** Granitgrau	**Iron Grey** Erzgrau	**Ferro Grey** Eisengrau	**Basalt** Basalt
Volcano Grey Vulkangrau	**Volcano Black** Vulkanschwarz	**Glacier Blue** Gletscherblau	**Ivory** Elfenbein	**Pearl White** Perlweiss	**Cream** Creme
Carrara White Cararaweiss	**Apricot-Beige** Apricot-Beige	**Sand Colour** Sandfarben	**Sahara Yellow** Saharagelb		

Note
For the natural colour impression of the Argeton® façade panels, please request samples.

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