RHEINZINK®

CASA NA AMIERA

A STRIKINGLY BEAUTIFUL EXCEPTION

PROJECTREPORT

GRANUM BASALTE MEETS DESIGN REQUIREMENTS

Some houses are so strikingly beautiful in their shape, materiality and colouring that you would love to approach them from the sky. The single-family detached house in the Portuguese town of Amiera is such an exceptional building, revealing its full potential from above and reflecting the ambition of the architects, clients and executing companies in terms of design.

The site is located in the west of Portugal near the important coastal town of Marinha Grande, which has become famous for its glassblowing and ceramics. The path leads along scattered, plain houses and farmyards that serve their purpose and bring an idyllic and pleasantly ambience to mind. The small urban conglomerate is directly bordered by pine woods and scenic hills.
Initially, nobody would expect to find such a residential building in the midst of this natural ground, which at first glance does not have much in common with its surroundings. However, the more we perceive and the more we get involved with the house, the better we understand the subtle ideas of the Portuguese architects Contaminar Arquitetos: The outer form reflects a contemporary interpretation of the traditional courtyard houses that also characterise the settlement structure in the surroundings of Amiera. At the same time, the architects take the industrial character of many buildings in Marinha Grande into account by using RHEINZINK titanium zinc. The material titanium zinc was used by the architects in such a way that its robust and durable properties stand out both architecturally and technically.

At the end of the driveway in a zig-zag course with a slight slope, a large entrance area welcomes us. A view to the inside and outside of the stringent shape of the modern pavilion is possible already from this position, announcing the integration into nature both on a big and a small scale. Although the pavilion presents itself closed to the road, it opens up generously to the adjacent landscapes as well as to the inner courtyard, which integrates the living quarters. This is the centre of the house and the boundaries between indoor and outdoor space seem to disappear with the intention of using the atrium area as part of daily life.

TITANIUM ZINC AS AN EYECATCHER

The architects have implemented the smooth transitions in the centre of the house to the living concept: entrance, living room and office are designed as an open, light-flooded continuous space. Only the private rooms are personal retreats hidden behind doors. Through the room-high all-glass façade, the residents can regularly look from the inside to the adjacent landscapes as well as to the introverted atrium courtyard, which offers extended living space when temperatures are warm enough. The large-scale use of white walls and the wooden floor contribute to this light feeling of space, emphasising that cosy feeling in the long term. The feeling of space is further enhanced by the circumferential roof overhang, which provides shade in summer, while in winter the orientation of the large glass surfaces allows using solar radiation.

The U-shaped structure is held together by a dark roofscape made of RHEINZINK titanium zinc. Apart from this striking material, there are very few materials that are combined with the titanium zinc. The façade was designed with balanced surfaces of concrete, wood and glass, which are restrained in comparison to the accentuated titanium zinc, yet do not deny their equally special presence.

There are houses that you would like to approach from the sky, so strikingly beautiful are they in their shape, materiality and coloring. The full potential revelation from the air.

A MEANINGFUL MATERIAL

Anthony Mendes from the contractor Arminda & Joaquim Mendes and responsible for manufacturing the RHEINZINK elements, says: "Due to the large spans and cantilevers, it was decided from the beginning to design the roof construction with steel. Thus, the idea of cladding the surface with titanium zinc was obvious. With RHEINZINK titanium zinc, we succeeded in harmonising the roof geometry, the large surfaces and the architectural requirements equally."

But initially, the desire was to only cover the roof surface with titanium zinc. In the process of the elaboration and the lively exchange between clients, architects and craftsmen, the material titanium zinc became more and more important and was not only to serve as a roofing, but also as an important feature of appearance. So, they jointly decided to make the circumferential eaves, which until then had been shown in the drawings as wooden boarding, as a wide strip of titanium zinc. A decision that subsequently influenced the entire appearance and turns out to be a special eye-catcher.

A total of 650m2 roof area, 200m2 of eaves and 210m2 of bottom roofing were cladded with RHEINZINK-GRANUM basalte, which has only recently been added to the RHEINZINK product range. The new product line is characterised by a durable phosphate coating, suggesting the typical zinc structure of the natural patina. The surface quality with its dark grey, almost black appearance is a sophisticated addition that creates a clear, striking contrast in combination with the building materials wood, concrete, glass and the white plaster surfaces.

The roof surface and its bottom side as well as the eaves were executed using the angled standing seam system. The RHEINZINK titanium zinc was manufactured in the factory of Arminda & Joaquim Mendes, located in the nearby city of Leiria. As a modular system, the panels can be prefabricated quickly and accurately using a traditionally ventilated construction. The panel widths on the roof surface, at the eaves and the reveals are precisely matching. Furthermore, the classic angled standing seam system characterises the puristic, precise appearance of the roofscape. In addition to the many positive features of RHEINZINK titanium zinc concerning craftsmanship and aesthetics, the factors of sustainability and durability were decisive for builders and architects. "The excellent recyclability of RHEINZINK titanium zinc and thus the reuse of the building material were decisive factors for our choice", says Anthony Mendes.

The residential building inspires in its entirety and causes a stir in its rural surroundings. The proportions, the use of durable building materials and the spatial continuum are principles that do not lose their validity. They ensure that the house makes a major contribution in terms of sustainable planning, recyclability and long-term residential use.

The house inspires in its entirety and causes a sensation in its rural surroundings.

CONSTRUCTION PANEL

Project
New construction of a residential building in Leiria, Portugal

Client
J. A. F. Gameiro, Lda.
Leiria
Portugal

Architect/Planner
Contaminar Arquitetos
Leiria
Portugal

Contractor
Arminda & Joaquim Mendes, Lda.
Leiria
Portugal

Technical Specifications
Roof: 655 m² 4 t Angled Standing Seam System RHEINZINK-GRANUM basalte
Facade: 200 m² 1.2 t Angled Standing Seam System RHEINZINK-GRANUM basalte
Roof Drainage: 210 m² 1.3 t Angled Standing Seam System RHEINZINK-GRANUM basalte

Photos
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