

THE EVOLUTION OF VENTILATED FAÇADE CLADDING OVER THE YEARS – HOW HAS TWEHA GROWN WITH IT?

Ventilated facade cladding is a construction technique that has undergone significant developments over the years. This form of facade cladding is characterized by an opening between the building's outer cladding and the insulation layer, allowing for air circulation. This ventilation space offers several advantages, including better moisture regulation, thermal insulation, and protection of the building structure. Below is an overview of the evolution of ventilated facade cladding:

- **Origin and traditional construction:** Ventilating facade cladding has its origins in the traditional architecture of various cultures. The use of an air gap between the cladding and the supporting structure provided protection against weather influences and moisture.
- **Materials:** In the past, mainly natural materials such as wood, stone, or brick were used for ventilated facade cladding. These materials offered durability and were often readily available.
- **Technological advancements:** With technological advancements in the construction sector, new materials were introduced, such as fiber cement boards, metal panels, HPL, and various composite materials. These materials offered more design possibilities and were often lighter and easier to install.
- **Insulation and energy efficiency:** As the focus shifted to energy efficiency, the insulation value of ventilated facade systems improved. High-quality insulation materials were applied to reduce heat loss and enhance the energy efficiency of buildings.
- **Sustainability:** The increasing demand for sustainable construction practices led to the development of environmentally friendly materials for ventilated facade cladding, such as recycled materials and claddings with long lifespans.
- **Integration of technologies:** Modern ventilated facade systems are often integrated with technologies such as solar panels or rainwater systems to further enhance the sustainability and efficiency of buildings.
- **Architectural diversity:** With the evolution of ventilated facade cladding, more design possibilities have emerged. Architects and builders can now choose from a wide range of materials, colors, and textures to add aesthetic appeal to the design of buildings.
- **Digitalization and modeling:** In later years, digital technologies such as Building Information Modeling (BIM) have been increasingly used in the design and planning



of ventilated facade systems. This has helped optimize performance and reduce construction errors.

It is important to note that the evolution of ventilated facade cladding is still ongoing. New materials, construction techniques, and sustainable approaches are expected to continue emerging as the construction sector further develops.

TWEHA, 2023