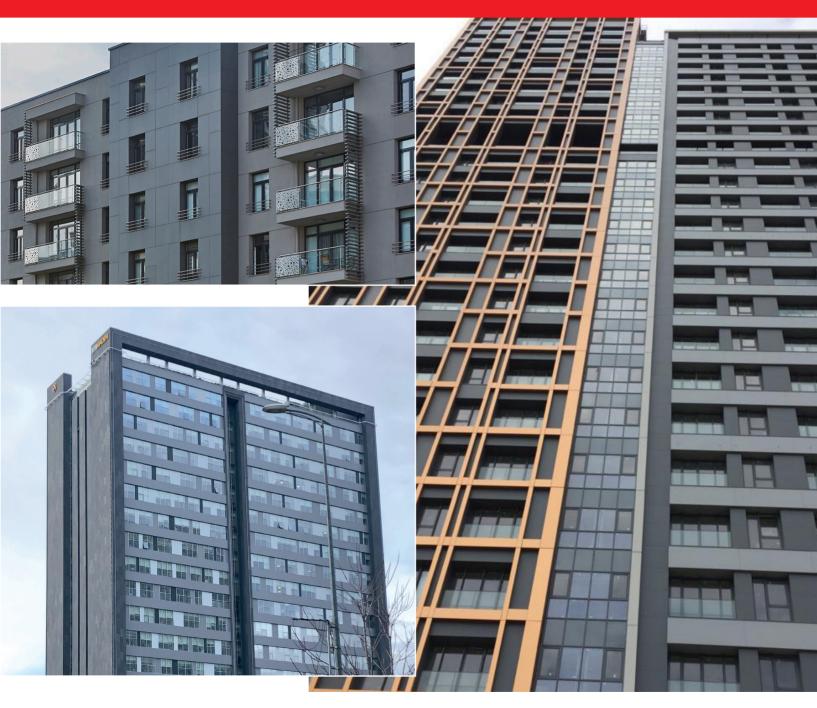


# ADVANCED FIRE RESISTANT VENTILATED FACADE SYSTEM



**knauf**insulation



# Ventilated Facade System

## The system consists of 5 main components



### 1-Load-Bearing Exterior Wall

The exterior wall of a building consisting of main components such as Reinforced Concrete, Aerated Concrete, Brick, Steel. Block and brick surfaces must be rough plastered.

### 2-Sub Construction

A load-bearing system consisting of anchors and profiles where the facade wall boards are mounted.

### **3-Insulation Layer**

A layer that keeps the structure at an almost constant temperature, prevents thermal bridges, thus reducing energy losses and providing thermal insulation, vapor barrier can be optionally used on it.

### **4-Ventilation Gap**

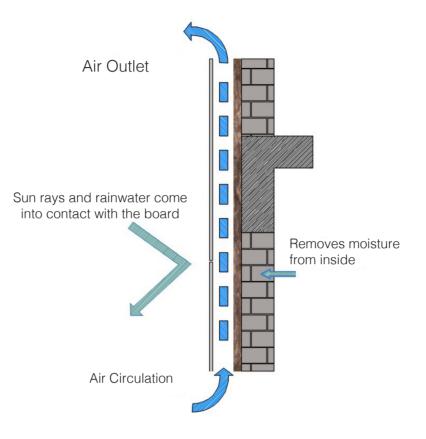
The gap between the facade wall board and the insulation layer or exterior wall, with ventilation openings at the lower and upper points, creates an air circulation in the intermediate space thanks to the lower / upper opening. This natural heat movement evaporates moisture and humidity and removes them from the building. Ventilation gap must be min. 20mm.

### **5-Facade Wall Panels**

Facade wall panel protects the building from the effects of climate and environment and gives an aesthetic appearance. It is mounted on the load-bearing system depending on the project.

# Advantages of Ventilated Facade System





• The use of facade wall panels that act as a shield against the effects of weather conditions, extends the life of the structure by providing effective protection against weather conditions such as rain, wind, snow, sun, which damage the buildings.

• The moisture that causes dampness is mostly caused by condensation on the outer surface of buildings. Mold and fungus formation is also caused by high levels of moisture. By means of facade wall panels, direct contact of the sun with the wall surface of the building is prevented and the building is allowed to breathe, and such negative conditions are eliminated by creating thermal balance. • Contributes to the energy efficiency of buildings by providing significant savings in thermal insulation.

• Provides a more aesthetic appearance in exterior and interior designs of buildings.

• Contributes to sound insulation. With the help of facade wall panels, the insulation of the air is also provided to a certain extent and reduces the noise, thus adding value to the buildings, especially in crowded cities, by making the buildings on busy streets more comfortable. **FireEx Ventilated Facade Systems** provide maximum resistance against fire in buildings as well as sound and heat insulation performance with the components it offers.





# Advanced Fire Resistance



FireEx facade systems are classified as A2 in the reaction to fire classification.

The system does not contribute to fire and is non-flammable.

Fire resistance is of great importance not only for the protection of the structure but also for the evacuation time from the building.









### Maximum sound insulation

- FireEx systems provide maximum performance of facade systems thanks to their high sound insulation properties.
- It protects living spaces against noise coming from indoors and outdoors and increases the comfort level.
- It offers comfortable living spaces by protecting interiors against traffic and similar noises in the outdoor environment.

### **High Thermal Insulation Performance**

- FireEx systems with low U-values provide maximum thermal insulation performance and energy efficiency.
- The lower the U value, the higher the heat resistance of the material and therefore the higher the thermal insulation.
- Facades are one of the areas where heat loss is the most intense in buildings. For this reason, the application of the curtain wall system in accordance with the standards is critical for the performance of the entire system.

# Weather Durability

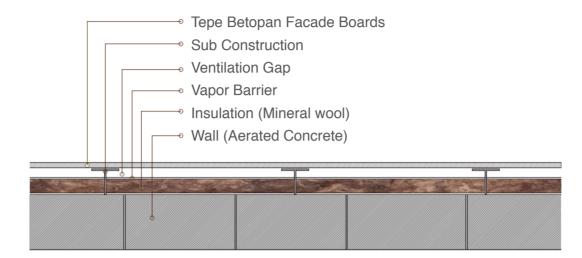
- Protects the building from external factors.
- Shows resistance against different weather conditions for years.

### **Environmentally Friendly**

- Friendly to user health.
- Main components consist of ecological materials.
- Contributes to the energy efficiency of the building.
- Minimum energy is consumed during production.
- Requires minimum maintenance

# Ventilated Facade System Wall Section



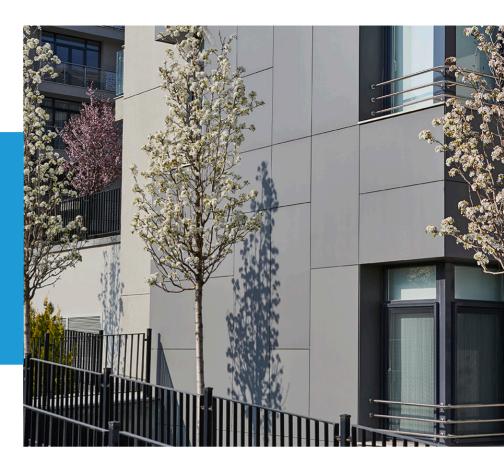


System Name	Reaction to Fire Class	Fire Resistance Time	**System U-Value
FireEx Unique	A2	EI 120	0,55
FireEx Ultra	A2	EI 120	0,54
FireEx Basic	A2	EI 120	0,55

\* Accredited laboratory test results can be provided upon request.

\*\*Wall block or reinforced concrete wall is not taken into account when calculating the U value of the system.







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