

### **Advantages of Ventilated Facade Systems** **Energy saving and Energy efficiency**

The theme of Energy Efficiency is one of the most widely discussed during the last few years. The climate changes are already a fact. The severe exploitation of natural resources is the main reason for that. The depletion of conventional energy resources forces reconsideration of the national energy strategies and make them part of one common World Strategy. The main advantage of ventilated facade systems is energy saving. The correct design and implementation of the systems reduce energy losses and energy expenses, increases the comfort of the premises, ensure healthy surroundings and help the environmental protection.

### **Excellent outer appearance**

Besides the excellent vision, which is due to the diversity of materials and the combinations between them, the façade materials protect the building's external surface from the environment and keeps its integrity. A new aspect of the ventilated systems – the cladding of HPL compact laminate. This is a non-conventional, excellent facade appearance

### **Natural ventilation and Vapor permeability**

Besides the thermal insulation, the natural ventilation and the vapour permeability are also very important for the inner microclimate.

The recommended width of the air gap, necessary for the existence of convection, is between 20 and 50 mm. This air gap protects the building from overheating during the summer and cooling down during the winter.

The ventilated façades allow the building to breathe and eliminate the condensation inside the premises. The vapor permeability of the enclosing walls and the thermal insulation let the construction moisture evaporate (this is valid for new buildings), and in premises with higher humidity - to be released outside. The absence of

culture for airing the inhabited premises is also a reason for the existence of moisture and microorganisms. Devices with or without sensors are being developed in order to maintain ventilation in frames and suspended façades. This process is natural for the ventilated facades.

### **Sound insulation**

The presence of air gap between the cladding material and the thermal insulation provides high level of noise insulation, a parameter which is very important for life in a big, urbanized city.

### **Fire Resistance**

This is one of the most important advantages of HPL ventilated systems. Some of the cladding materials are fire resistant.

The others have non-burning cores or are mounted on certain height, according to the European regulations for fire safety.

The combination between fire resistant façade materials and specially designed system, additionally increases the fire resistance of the building.

### **Fast mounting and Easy maintenance**

An important parameter of ventilated facade systems is the speed of mounting and maintenance. Specially designed to decrease the time for designing and mounting, ventilated systems are the only solution for large façades, short deadlines, safety and excellent vision. A big advantage in the polluted urban environment is the self-cleaning feature of some of the cladding materials and the easy cleaning of the others.

