

The future of electric heating systems

Electric heating systems gradually supplant from the houses the usual systems of centralized or individual heating, where gas, wood coal and other products are used as energy carriers, which release thermal energy during combustion. The cost of commissioning electric heating systems is 30-80%, and the operational ones are up to 30 % lower than traditional heating systems.

Autonomous electric heating systems allow their owners to monitor electricity consumption and create comfortable conditions in the room.

Therefore, windows with electric heating are environmentally friendly, efficient, economical, safe for humans and aesthetically attractive. In the beginning of autumn, while the heating season has not come, and the "outside the window" the air temperature has already dropped significantly, the apartment becomes cold and damp. The oil heater does not help to get rid of the unpleasant sensation, only the window with heating.



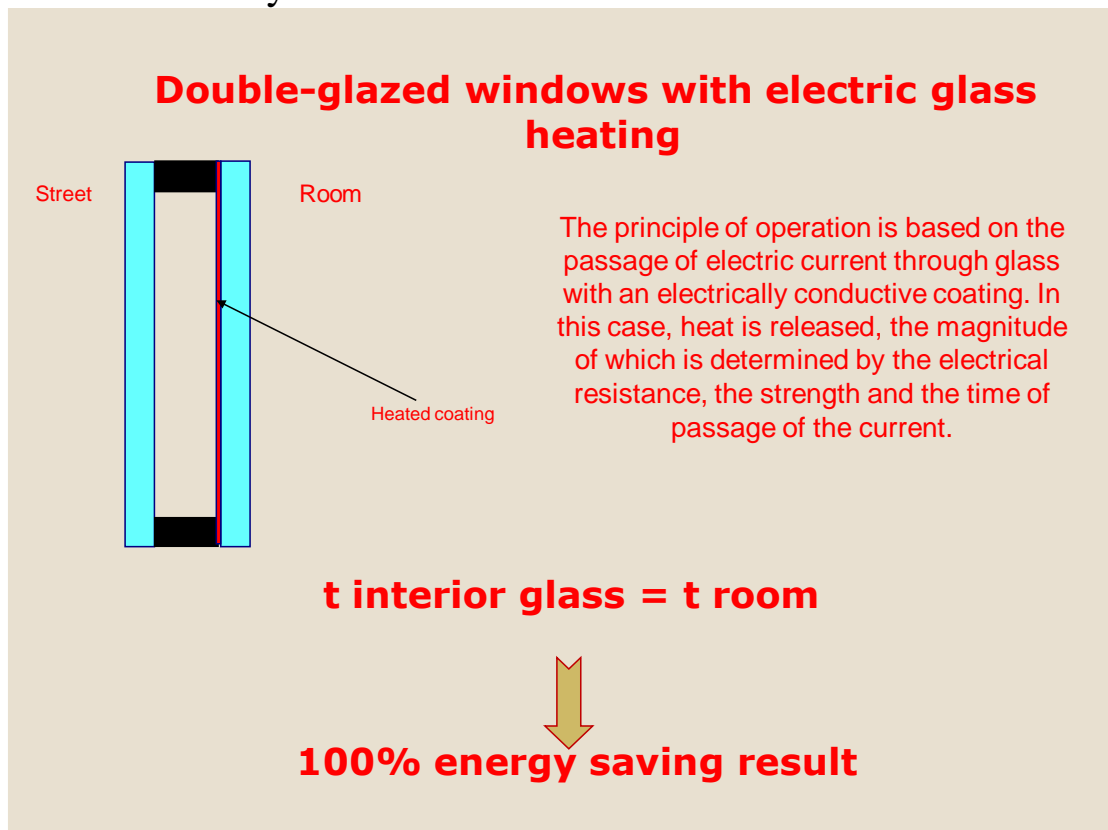
Heated windows can become a reality of the European market

Glass with electric heating is virtually indistinguishable visually from ordinary window glass, regardless of the presence inside special conductive layer.

Due to the inclusion of a temperature controller in the design, such a glass can be installed in residential buildings, performing the function of the main heating system. At maximum heating, the glass unit consumes electricity no more than a conventional light bulb.

And this glass never fogs up. More durable than ordinary glass.

The range of application of this glass is not limited to living quarters, it is ideal for glazing of greenhouses and pools because of such unique properties and high economic potential, electric heated windows can become a reality of the market of translucent structures.

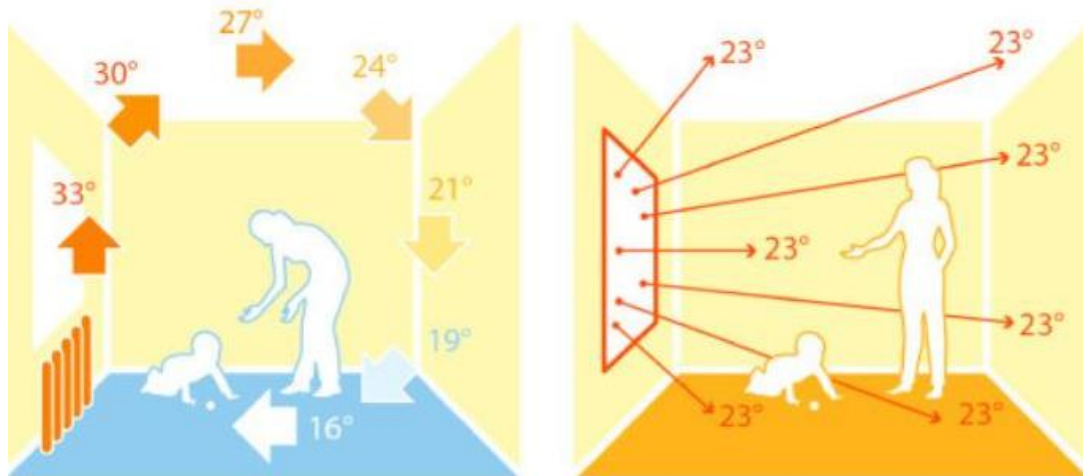


The revolution in glazing: The windows of a new generation

The growing popularity of double-glazed windows with electric heating is explained by a number of obvious advantages: fire and electrical safety, economy, the possibility of automatic monitoring of the set temperature and the device of the alarm system on their basis, the ease of installing such glasses in the already installed windows instead of standard double-glazed windows. And that's not it.

Glazing with heating function

Panoramic glazing increases heat loss, forcing to use powerful heating systems. Glazing with electric heating effectively heats the room, not letting it cool down. Reduces the load on the heaters.



Windows without condensation

The warm surface of the glass turned into the room removes such problems as condensation on windows, misting, frost, etc. And it's just pleasantly tactile.

Rooms without "dry" air and dust

The "warm" glass does not dry the air, because for heating it does not pass through filaments or other incandescent circuits. As a consequence, air turbulence and dust circulation are minimal, which is especially important for those suffering from allergies and asthma.



Savings and efficiency

The heat will not come out, and you will not heat the street - a special multilayer structure of the heating element with a reflective layer makes infrared radiation strictly one-sided.

Energy saving and sun protection

Even in the inactive state, heated windows make the home warmer: the heating layer is a metallized spraying, which in winter keeps the room warm, and in summer performs sun protection function preventing over heating.



Automatic climate control

The electrically heated double-glazed windows are equipped with temperature sensors that can monitor the preset temperature of the glass or air in the room, automatically shutting down the heating.

Strength and trauma safety

The structure of the double-glazed window with heating includes tempered glass, which is several times stronger than usual. And even if such a glass can be broken, it will crumble into small fractions with blunt trauma-safe edges.

Bad news for the burglar

Due to the metallized spraying, the windows with heating are as ready as possible for integration into the security system - just install the penetration sensor (resistance). In the case of ordinary glass, it would take a replacement of the double-glazed windows.

New opportunities in the design of buildings: the snow load is not terrible

Windows with electrically heated glass form the heating surfaces on the roof surface, which will destroy the snow cover and facilitate its removal. The problem of accumulation of snow is eliminated automatically: the snow masses will contact with the warm surface of the glass and slide several times more reactively than with a similar roof without windows or windows with ordinary glass!

Advantageous heat

The average glazing area of a 2-room apartment is 8 m². In order to achieve a comfortable temperature, leveling out cooling and drafts in the apartment (creating a comfort zone), 1 m² of glass should consume approximately 150-180 W / h. The average daily operation time of the insulating glass unit in the regime of constant maintenance of temperature is about 14 hours. Consequently, the amount of energy consumed per 1 m² is only ~ 2.5 kW per day! The installation of programmable thermostats will help to further reduce power consumption: they will allow you to configure the windows to turn on an hour before you come home, which will reduce the time of the warm windows necessary to maintain a comfortable temperature, up to 8 hours. Thus, the amount of energy consumed per 1 m² during the day is only about 1.5 kW.

With a good heat transfer coefficient, the insulating glass with electric heating keeps the temperature (+ 18 ° C in the "heat curtain" mode and + 50 ° C heating mode) and remains dry even when the outdoor temperature is -35 ° C.

Justification of the use of energy-efficient double-glazed windows

Personal comfort



Reduction of the circulation of cold air and increase in comfort zones.

No fogging and condensation on the glass inside the room

Environmental causes



Conservation of natural resources
Reducing CO₂ emissions into the atmosphere

Economic reasons

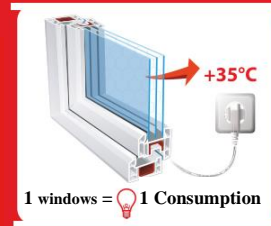


Reducing heating costs

Windows with electric heating

Comfortable life

- ✓ Without batteries
- ✓ Without heaters
- ✓ Without condensation
- ✓ Without gas heating



Glass with electric heating have significant advantages in window constructions:

- Significant reduction in energy consumption by other sources of space heating to maintain a comfortable temperature (more than 40%).
- Does not dry air, does not require additional ventilation and humidification of premises.
- Creates more comfortable conditions in the room than when using air heating.
- Up to 85% of its energy is spent on heating the room, regardless of the temperature on the street.
- Because 25% of all heat loss occurs through window structures, and the use of double-glazed windows with electrically heated glass reduces these losses to zero (resistance to heat transfer when using electrically heated glass is equal to infinity)
- If necessary, creates thermal zones, supplementing or replacing basic heating systems.