

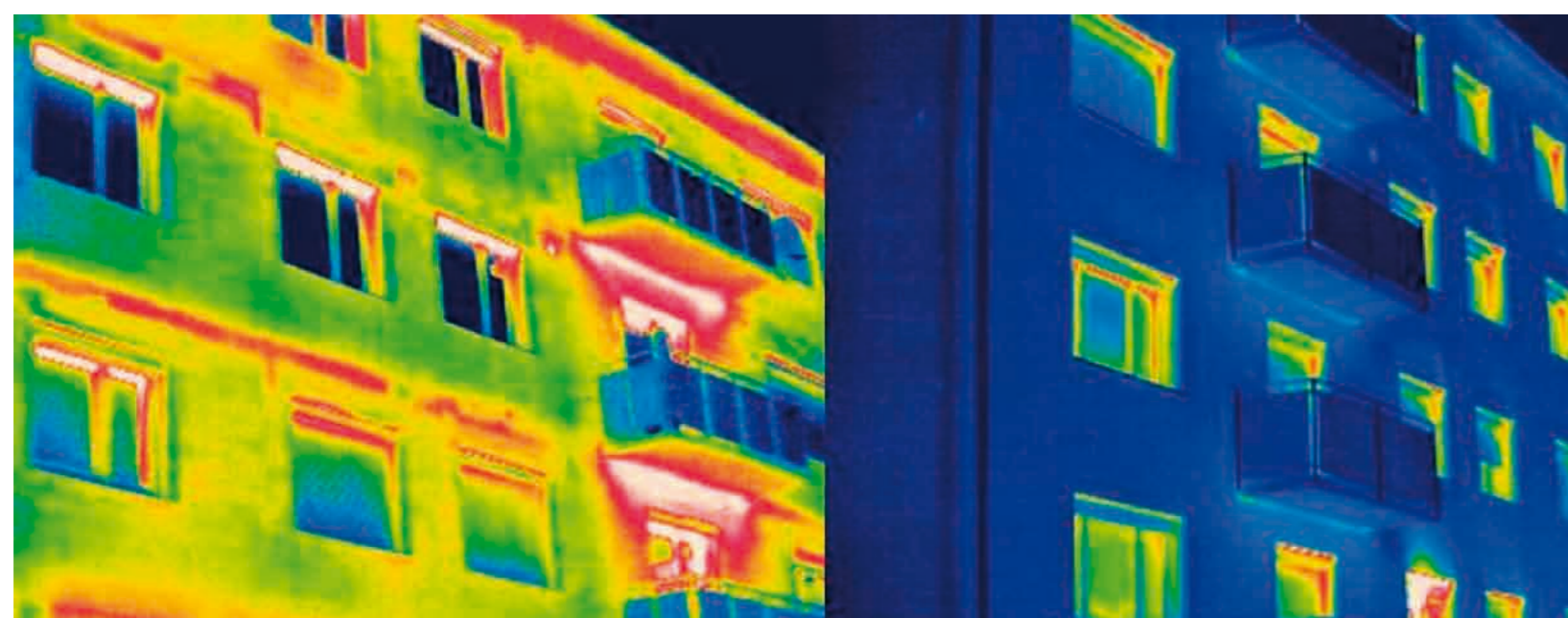
Buildings show their colours

Building check with thermography

Buildings space heating demand and space heating costs are mainly set by the heat insulation, the windows' quality and the thermal weak points of the building envelope.

More heat is lost from these points (thermal bridges) than from other. Exactly this is shown in the thermography pictures, which are made with a thermography camera during the cold season of the year.

The thermography camera is a highly sensitive instrument, which transforms the infrared radiation of a body into a thermography picture. Temperature differences are shown in different colours and the weak points in brighter colours (yellow, red and white). Hereupon retrofitting measures can be implemented by means of expert advice.



Thermography before and after retrofitting:
the more blue colour, the better the insulation of the building

Example property:

Apartment buildings Makartstraße in Linz/Austria

Co-ordination: AEE INTEC

Year of construction: 1957/1958

Period of refurbishment: August 2005 – March 2006

Costs of refurbishment: 2,446,000 EUR

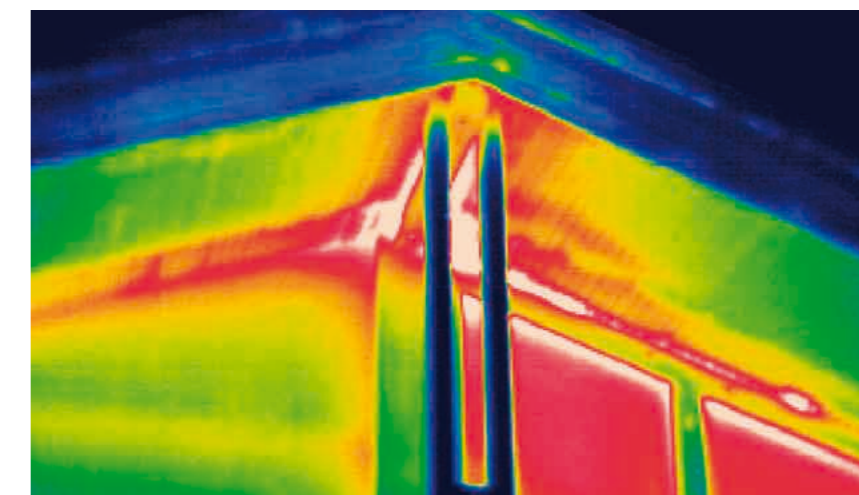
	Before	After
Total area	2,789 m ²	3,106 m ²
Specific heat energy demand	179 kWh/m ² a	14.4 kWh/m ² a
Heat demand	500,000 kWh/a	45,000 kWh/a
Energy costs for space heating (without domestic hot water)	14,150 EUR/a	1,274 EUR/a
Energy savings	455,000 kWh/a (about 90 %)	
Energy costs savings	12,876 EUR/a	



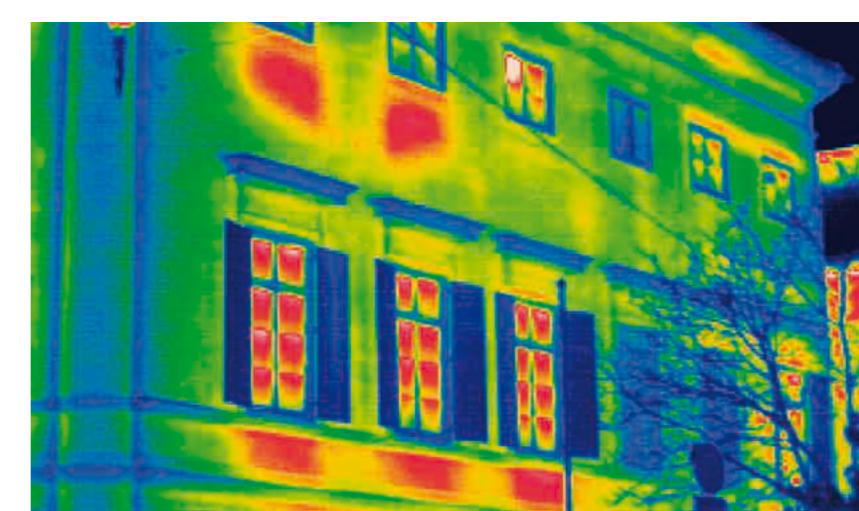
Before

After

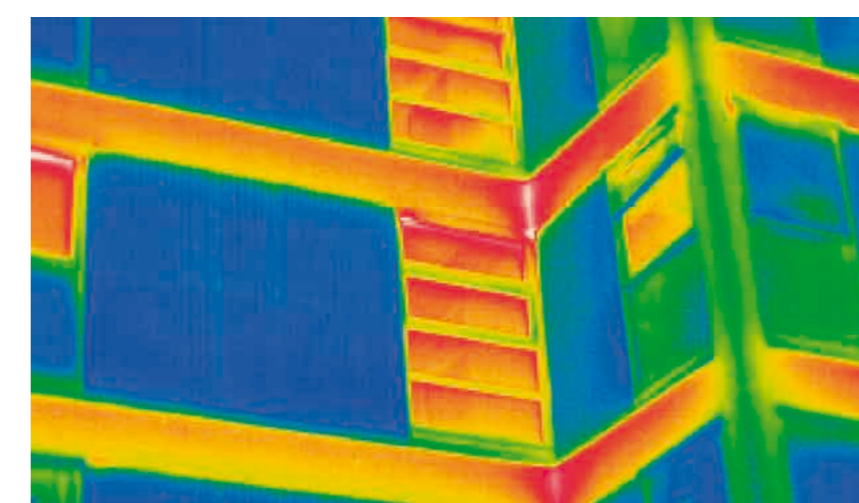
Thermal weak points



Leaky constructions

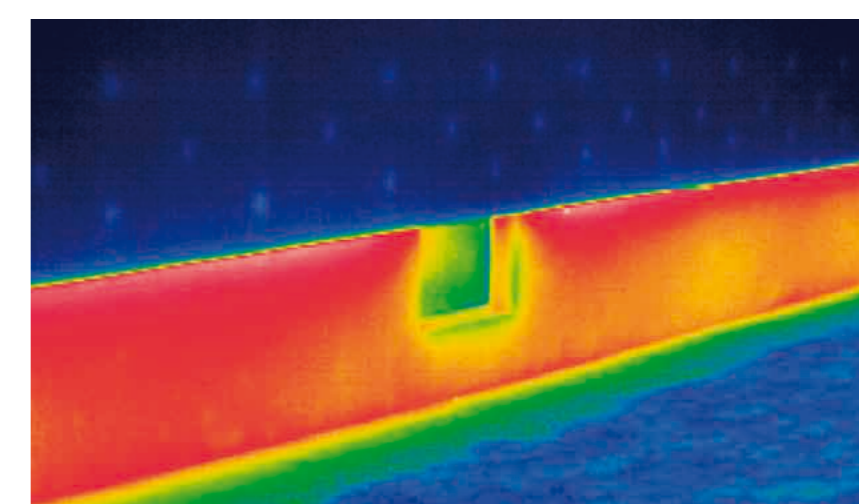


Non-insulated radiator niches,
bad bricking

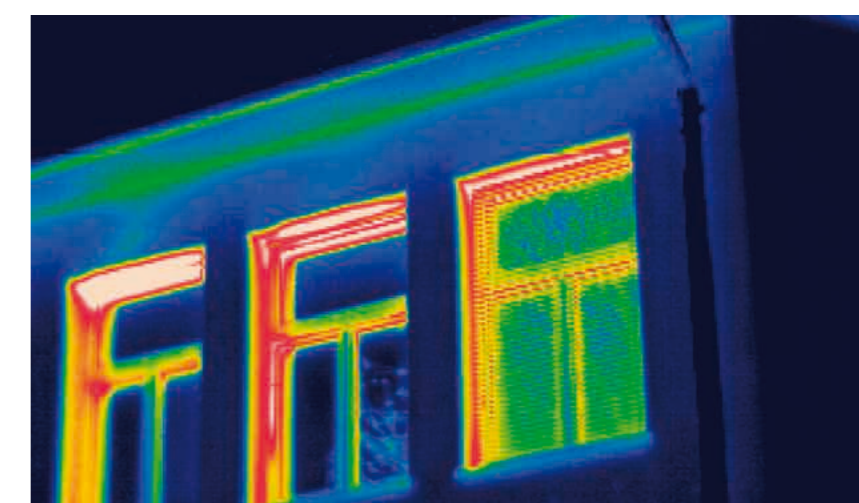


Thermal bridges in the ceiling

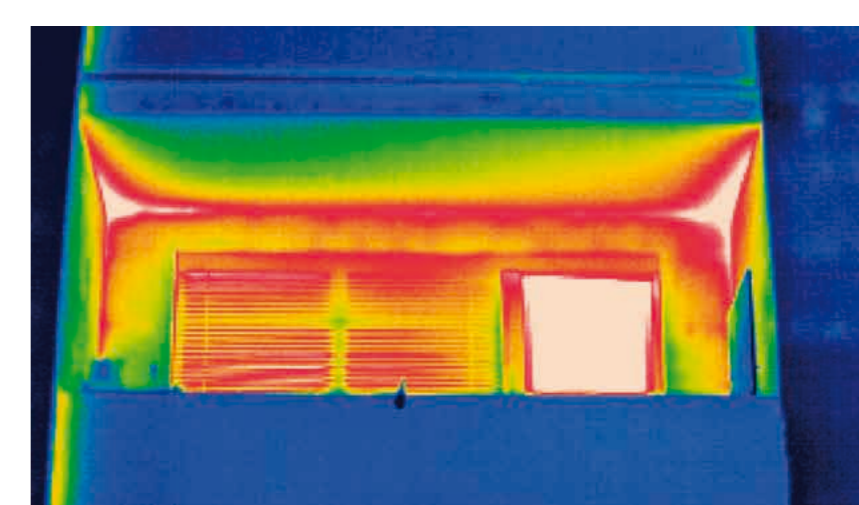
Retrofitting failures



Non-insulated plinth



Leaky windows and window
connectors



Non-insulated balconies