

Thermal Insulation Glazing



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In all seasons, Saint-Gobain thermal comfort glazing maintains and preserves agreeable temperatures

High performance thermal insulated glazing enhances windows energy efficiency by significantly reducing heat loss.

Thermally insulating glass (also known as low-emissivity or low-E glass) usually forms the inner pane of an Insulating Glass Unit (IGU). The glass has a transparent metallic coating that reflects heat from radiators or fires back into the room, rather than allowing it to escape through the windows. At the same time it controls solar gain and maximises natural light.

Using thermally insulating double glazing is the best way to improve the energy efficiency of your windows and make building occupants more comfortable.

Thermally insulating glass can be combined with many other products for multi-functional glazing, such as low-maintenance, solar control, noise reduction, decorative glass and enhanced safety and security.

For comfort and energy savings, enhanced thermal insulating glazing has become as part of the minimum standard. In winter, this glazing improves comfort by minimizing the cold wall phenomenon and protects the quality of the structure by reducing internal condensation. Highly appreciated on hot sunny days, Enhanced Thermal Insulating glazing which also includes a solar protection function, reduces heat gain while allowing a

high level of natural, although softened, light to filter in.

Using glass that combines thermal insulation glazing and solar protection remains key for reducing overheating and glare. Given their large glazed surfaces; facades, windows and conservatories receive a huge amount of natural light and solar energy. Hence, it is important to ensure appropriate solar control to limit overheating and roof exposure to the sun's rays.

Nevertheless, choosing the right thermal and solar performance glazing will depend on different criteria such as the facade's orientation and the building's climate zone.

For example, glazing with light solar protection may be chosen for facades with low exposure to the sun (facing north or east), if the building is in a cool climate zone.

On the other hand, for south and west orientations, especially in hot regions where there is high exposure to the sun's rays, it is recommended to use glazing with a reduced solar factor, from our SGG COOL-LITE range.

Whenever differences in temperature exist between surfaces, heat will migrate from the warmer area to the cooler area. This is true of all surfaces. However, a glazed surface is special in that it is also transparent to solar radiation, which results in free heat gain.

By opting for athermal insulation glazing you will reduce the energy losses of your accommodation or office between 50 % and 80 %

Saint-Gobain glass for thermal comfort has significantly improved the insulation properties of windows, conservatories and facades. As such, these modern glazing solutions contribute to improving the energy performance of buildings by providing a positive energy balance to the building envelope as well as by reducing needs for artificial lighting. As a matter of fact, many energy and thermal simulations suggest that, in most European climates and for most building types, the average glazed surface to floor ratio should be increased

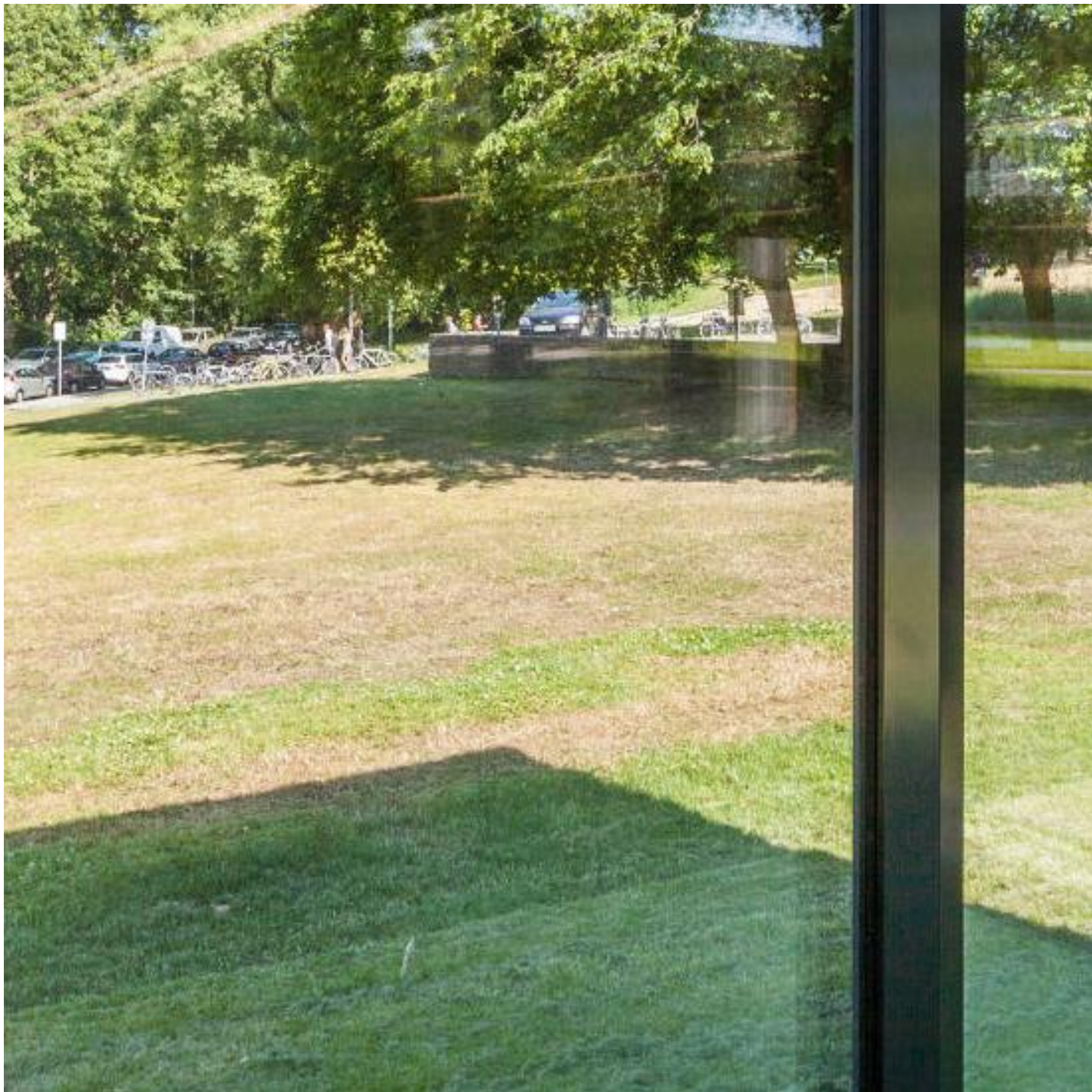
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