

Heat in the Office Doesn't Just Tire Your Staff. It Costs.

In the service sector, every extra degree is paid for twice: in productivity and in energy.

We measure rent by the square metre, broadband by the megabit, parking by the space. But the temperature of offices remains the great blind spot — even though it weighs directly on team performance and on the energy bill.



A glazed open-plan office in high summer: bright, modern — and often turned into a greenhouse the moment the sun hits. Thermal comfort becomes as much a performance issue as a matter of well-being. (AI-generated image)

There is a cost that few companies enter in their budget, because it appears on no invoice: the loss of productivity caused by heat. Yet it is real, documented, and often far heavier than the cost of the air conditioning meant to remedy it.

The service sector — offices, public administrations, headquarters, coworking spaces — shares an architectural feature that makes it particularly vulnerable: **large glazed surfaces**, designed for light and image, but which in high summer behave like so many solar collectors. The result: overheating floors, air conditioning running flat out, and staff struggling to concentrate.

Heat Has a Hidden Cost: Productivity

Studies on workplace performance converge on one point: beyond a certain indoor temperature threshold, concentration, alertness and cognitive output drop. More frequent errors, greater fatigue, irritability, slower execution: the human brain works poorly when it is too hot.

For a service activity, where the value produced rests almost entirely on the attention and thinking of the teams, this has a direct impact on the bottom line. **Since payroll is by far the largest cost item of a service company**, a few points of productivity lost during heatwave weeks weigh far more heavily than the “energy” line of the budget.

In other words: office overheating is not merely a comfort issue. It is a question of economic performance.

The Glazed Façade: an Image Asset, a Thermal Weakness

The modern service building is recognisable by its large glazed façades. They bring light, transparency and prestige — but they are also the preferred entry point for heat. Standard glazing lets through most of the infrared radiation, which turns into heat indoors: it is the greenhouse effect, on the scale of an office floor.

This is precisely where a **transparent solar-control treatment** applied to the glazing comes in: it filters up to 90% of infrared (the heat) and 99% of UV, **while preserving the transparency of the glass and the view**. Light comes in, heat stays out. Workstations near the windows — often the most uncomfortable in summer — become liveable again, without permanently lowered blinds or air conditioning pushed to its maximum. Temperature differences behind glazing can reach **up to 14 °C**.



On large glazed façades, a transparent solar-control treatment filters up to 90% of infrared and 99% of UV — without taking anything away from the light or the view.

Reflect on the Roof, Regulate Indoors

Glazing is only part of the envelope. On the opaque roofs and façades of office buildings, a thermo-reflective coating reflects up to 91% of solar radiation, breaking overheating before it reaches the top floors — often the most exposed.

And because office comfort is not limited to summer, our indoor formulations enriched with **silica aerogels or ceramic flakes** limit heat loss in winter. The envelope is thus thermally regulated all year round: cooler in summer, better tempered in winter.

The Case of Modular Buildings: Temporary Offices and Classrooms

A growing share of service-sector space is found not in permanent buildings but in modular constructions: temporary offices during a building project or a move, temporary extensions that have become permanent, administrative pavilions — and, increasingly, modular classrooms deployed urgently to make up for a shortage of school premises.

These structures share one major thermal shortcoming: **low thermal inertia**. Light and quick to install, they accumulate heat very fast during the day and release it just as fast — an office module or a prefabricated classroom becomes stifling after a few hours of sun, and struggles to cool down. In winter the phenomenon reverses: the heat produced escapes as fast as it is generated.

For these buildings, the envelope — roof **and** façades — is the most effective lever, and often the only realistic one. A thermo-reflective treatment turns a module that is unliveable in summer into a tempered workspace or learning space, without resorting to costly, energy-hungry air conditioning that is difficult to install on this type of structure. It is a particularly sensitive issue for classrooms, where heat directly degrades children's learning conditions — a subject that the news of recent summers has made impossible to ignore.



Temporary offices, administrative pavilions, modular classrooms: with low inertia, these structures overheat fast. Treating the envelope is the most effective lever to make them liveable, summer and winter alike.

Air Conditioning, Relieved Rather Than Replaced

Most modern office buildings are already air-conditioned. Our coatings do not replace these systems: **they relieve them**. By lowering the thermal load entering through the glazing, roofs and façades, they reduce the demand on cooling systems — and therefore their electricity consumption, their wear and their maintenance. Air conditioning still ensures comfort, but it works less, less often, and for longer.

The upshot: reduced energy consumption (**up to 40% saving** on cooling needs), equipment that lasts, and **a lighter carbon footprint** — an argument increasingly expected in **ESG** approaches and real-estate certifications.

An Investment That Speaks the Manager's Language

For an owner, a building manager or a company director, thermo-reflective treatment of the envelope ticks several boxes at once:

- **Preserved productivity** — teams working in good conditions, even in the middle of a heatwave.
- **Reduced operating costs** — less air conditioning, less frequent maintenance, equipment that lasts.
- **Asset enhancement** — a comfortable, high-performing building rents better and gains in value.
- **ESG and energy compliance** — a passive intervention, aligned with MoPEC 2025 and investor expectations.
- **Measurable gains** — documented under the international IPMVP protocol: the savings are not promised, they are proven.

In a Word

In the service sector, heat does not merely inconvenience: it slows teams down, inflates bills and wears out equipment. It has long been treated as an inevitability of summer, with lowered blinds and air conditioning pushed to the max.

Treating the envelope — glazing, roofs, façades — makes it possible to act at the source, on every surface through which heat enters. More comfort for those who work or learn there, less energy for those who operate the building. **Summer and winter alike, from the largest headquarters to the humblest modular pavilion.**

Sources: Technical data on thermo-reflective coatings and solar-control treatments (albedo, SRI, IR/UV filtration) · Literature on productivity and workplace temperature · AREP/SNCF and Pouget Consultants studies on reflective processes, 2024-2025 · MoPEC 2025, OFEN / EnDK · MeteoSwiss — Swiss Climate Scenarios 2025

Do you manage offices, a headquarters, a public administration or modular premises? Let's talk about the comfort of those who work there — and about what heat really costs you.

 **Request a THERM'Reflectis assessment**

Cool, Reduce, Reflect — naturally.

Our 4-step approach:

Assessment — thermal and structural → **Planning** — tailored → **Application** — certified → **Monitoring** of gains

Was your building designed to meet this new challenge?

Your potential is unique. Whether it is an industrial site, an eco-district project, urban heritage or a service building, **THERM'Reflectis** has the expertise to reveal it fully.

Do not let this potential lie dormant.

Every surface counts.

Every degree gained makes a difference.

Every project contributes to a more sustainable future.

Contact THERM'Reflectis : transformons ensemble votre potentiel en performance !

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“Revealing the hidden potential of every surface to build the sustainable Switzerland of tomorrow. Your project, our mission.”