

The Comfort of a Room Doesn't Show in the Photo. It's Felt at Night.

In hospitality, thermal comfort is not a detail. It is the experience itself — summer and winter alike.

Everything is cared for: the décor, the bedding, the menu, the welcome. Creating a memorable experience is an art that the professionals of this sector master with passion. But this pursuit of perfect comfort has a downside we rarely face head-on: its energy cost.

By Joël Kohli, Founder & Director



An elegant hotel room, a fine view, a carefully crafted atmosphere. Everything is designed for the experience — but behind this comfort lies an invisible thermal balance, between guest well-being and energy consumption.

It must be acknowledged: few sectors take care of the customer as far as hospitality does. Nothing is left to chance — the light, the materials, the flavours, the temperature of the room. The professionals of this trade deploy considerable energy and expertise to make a guest feel perfectly at ease, at every moment of their stay or their meal.

But this admirable standard often comes at a high price — and not only on the bill. To keep the promise of comfort, one **pushes the air conditioning** to full power in summer, one **boosts the ventilation**, one **heats intensively** in winter. The result: energy consumption that spikes at the worst times of the year, and sometimes a paradoxical discomfort — an air-conditioned room too cold and too noisy to sleep well, dried-out air, a constant draught, abrupt contrasts between a sun-baked terrace and a refrigerated dining room.

In other words: in trying so hard to correct the temperature, one sometimes creates discomfort of another kind — and adds to an already heavy energy bill.

What if we acted instead **upstream**, on what lets heat in during summer and lets heat escape in winter: the building envelope itself?

Summer: the Room You Can't Cool Down Fast Enough

A hotel concentrates thermal weak points. **Rooms beneath the roof**, prized for their character, are the first to become unliveable during heatwaves. **South-facing façades, large glazed bays** offering the view, **verandas and winter gardens** — everything that makes a place charming becomes, in high summer, a source of overheating.

The usual answer — pushing the air conditioning — has its limits: it is costly, it is noisy (an irony in a room where one comes to sleep), it dries out the air, and it struggles to keep up when heat enters faster than it can remove it.

Acting on the envelope changes everything, at the source:

- **On exposed roofs and façades**, a thermo-reflective coating reflects up to 91% of solar radiation. Rooms under the eaves stop accumulating heat, and the air conditioning, where it exists, gets some breathing room.
- **On glazing, bays and verandas**, a transparent solar-control treatment filters up to 90% of infrared (the heat) and 99% of UV, **without taking anything away from the view or the light** — the promise of a room with a view remains intact, minus the overheating. Temperature differences behind treated glazing can reach 14 °C.



Glazed bays, verandas, rooms with a view: a transparent solar-control treatment cuts up to 90% of infrared without taking anything from the panorama. The charm stays, the overheating goes.

Winter: Keeping the Heat You Pay So Dearly to Produce

This is the side too often forgotten, yet it weighs heavily in a sector open all year round. In winter, a hotel or restaurant permanently heats large volumes — lobbies, dining rooms, bedrooms, verandas — and every calorie that escapes through the envelope is a calorie that must be produced again, with the energy bill to match.

Faced with these heat losses, there is no single answer, but **several technologies**, each acting on a different parameter of energy performance. Our role is precisely to identify, according to the building and its weak points, **the one that will deliver the best result**.

Some of our formulations, **enriched with silica aerogels or ceramic flakes**, work on the **thermal regulation of walls**: applied to interior walls, they **limit heat loss** and **dampen temperature variations**. In practice, heat that stays where it is produced, walls that feel less cold to the touch, greater comfort at the same heating temperature — or even a lower one.

Others act on a lever too often overlooked: **airtightness**. For an envelope can be properly insulated and still lose some of its efficiency when warm air escapes through the porosity and micro-discontinuities of the walls. This type of coating forms, once applied, a **continuous layer that sharply reduces the air permeability of the wall** — down to remarkable levels (in the order of $0.03 \text{ m}^3/\text{m}^2 \cdot \text{h}$ under the EN 12114 standard on a tested system). The result: **fewer parasitic air leaks, heating energy better preserved, a more even comfort**, and the **disappearance of cold-wall sensations and draughts**.

These solutions do not replace the building's insulation: **they complement it**, each in its own way. This is precisely the value of a prior assessment — determining which of these technologies, on your walls and for your use, will make the real difference.



Summer and winter alike, the envelope becomes a regulator: it reflects solar radiation when it is hot, and retains indoor heat when it is cold. One and the same action, two benefits across the whole year.

A Sector Where Comfort Turns Directly into Revenue

In most activities, thermal comfort is a cost. In hospitality, it is an **investment with a measurable return**, because it acts directly on the levers of revenue:

- **Guest satisfaction and online reputation** — a good night's sleep, a meal taken in the cool or the warmth, is a positive review; and in this trade, the online rating drives the occupancy rate.
- **Time spent, hence spending** — a comfortable covered terrace in the shoulder season, a pleasant veranda in winter, means additional time on the premises, and therefore more consumption.
- **Operating costs** — less air conditioning in summer, less heating in winter: two heavy items, eased across the whole year.
- **Asset value** — a thermally efficient building gains in value and meets the growing ESG expectations of hotel groups and their investors.

And because proof takes precedence over promise, we document the gains achieved under the international **IPMVP** protocol: the savings are not announced, they are measured, establishment by establishment.

A Discreet Intervention, Respectful of the Place

One final, decisive argument in this sector: our solutions are **passive and discreet**. They are applied without heavy works, without altering the aesthetics of an establishment — an essential point for a boutique hotel, a house of character or a restaurant whose atmosphere is its identity. No visible machine, no nuisance: the place remains itself, simply more comfortable.

For buildings that are already air-conditioned — common in upscale hospitality — our coatings do not replace the air conditioning: **they relieve it**. It works less, less often, and lasts longer.

In a Word

In hospitality, one does not sell merely a room or a cover: one sells an experience, and thermal comfort is an invisible but decisive component of it. Too hot in summer, too cold in winter, and all the care lavished on everything else fades behind a physical discomfort.

Treating the envelope — roofs, façades, glazing, interior walls — means acting on both seasons at once: repelling heat when it assails, retaining heat when it costs. More comfort for your guests, less energy for your establishment. **An investment felt at night, and read in your accounts.**

Sources: Technical data on thermo-reflective coatings and solar-control treatments (albedo, SRI, IR/UV filtration, aerogel formulations) · Literature on thermal comfort and guest satisfaction · MoPEC 2025, OFEN / EnDK · MeteoSwiss — Swiss Climate Scenarios 2025

Do you run a hotel, a restaurant or a hospitality establishment? Let's talk about your guests' comfort — summer and winter alike — and what it brings in.

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✉ connect@thermreflectis.com

☎ +41 (79) 456 07 80

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