



PASSIVE THERMAL MANAGEMENT

Outsmart heat.

A material that halts heat transfer - passively, with zero energy input.

*Everyone else moves heat away. **Heat stops here - Avenas***

AVENAS

avenas.tech

THE PROBLEM



Cooling is now a global energy problem.

~10%

of the world's electricity
now goes to cooling

2,900 TWh

cooling demand today —
more than the entire EU

+55%

projected growth by 2035
(to 4,500+ TWh)

The ACs just relocate heat at a massive energy cost
As data centers and cities surge, Avenas stops heat entirely

Source: IEA, Energy Efficiency / Space Cooling 2025.

THE SHIFT



Everyone moves heat. We stop it moving.

THE OLD PLAYBOOK

Reflect it. Radiate it. Pump it.

Legacy systems fail on a sunless wall at night, at shade or a machine in a dark basement.

Traditional cooling collapses the moment you lose open skies and moving air..

AVENAS

Traps heat at the boundary.

Avenas works anywhere—blocking heat permanently without needing skies or air. No power. No moving parts

Works anywhere, anytime.

We halt the heat transfer

FORMAT-AGNOSTIC



If it can be coated, it can be cooled.

Avenas Nano is an additive, not a product. Blend it into a coating, film or polymer and it goes wherever they go — clear or opaque, flat or curved, indoors or out.



Glass & windows

Transparent films & glazing



Metal & facades

Roofs, cladding, panels



Concrete & masonry

Walls, infrastructure



Plastics & polymers

Housings, sheets, parts



Painted surfaces

Any topcoat or paint line



Composites & textiles

Panels, membranes, fabrics

One material. Transparent or opaque. No new hardware, no new production line.

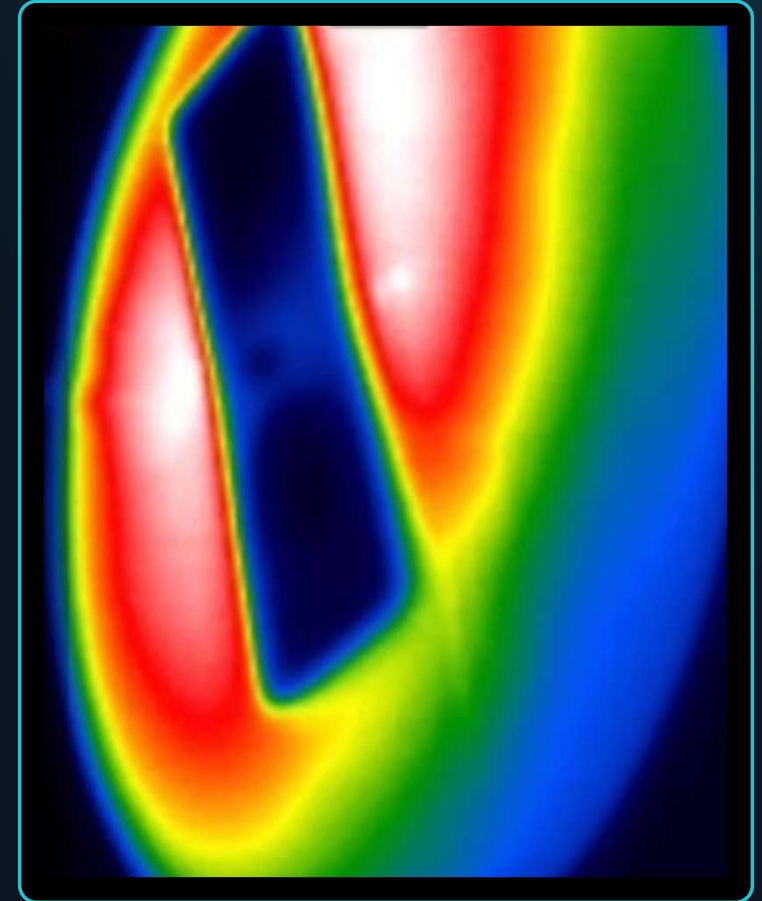
THE PROOF

Early, but real.

~10°C

cooler under load in our lab proof-of-concept —
at centimeter scale.

- Transparent or opaque implementations
- Centimeter-scale POC complete; patents filed
- Full operating-condition characterization underway



*Lab thermal image: the Avenas-coated coupon (dark / cool)
beside hot references under load.*

THE MARKET



A large market — with the wind behind it.

TAM

\$200B

All thermal-management applications

SAM

\$40B

Buildings, transportation, industry,
agriculture and data centers.

SOM

\$1-3B

Beachhead markets reachable through
OEM partnerships.

WHERE IT GOES TO WORK



**Architectural glazing
& films**



**Automotive glazing
& roofs**



**Industrial equipment
& process**



**Data centers & AI
infrastructure**

Sector selection under active analysis. Cool-roof coatings alone are forecast at ~\$5-7B by 2030 (Grand View, Fairfield).

Avenas Inside.

We don't make paint. We make the ingredient inside it.

The additive

Avenas Nano - a drop-in nanomaterial.



Their products

Mixed into existing coatings, films, polymers & composites.



Their lines

Partners keep their factories. We power the performance.

Proven precedent: Sumitomo's CWO — a heat-control nanomaterial licensed as an additive into films and glazing worldwide. Ingredient licensing scales without owning the factory.

TRACTION

Current status



DONE

- ~10 °C lab POC validated
- 2 US patent applications filed -Proprietary nanoparticle synthesis and formulation know-how
- Exclusive worldwide license
- EBV + IIA incubator · \$2.2M tranche
- Climate Launchpad · Rhodium Award
- Initial discussions with global industry leaders



TEAM & STAGE



Built by the people who can actually build it.

Roy Matalon

CEO & Co-founder

Commercialization & operations.

Prof. Lena Yadgarov

Co-founder & CSO

Pioneer of the nanomaterials at the core.

Dr. Vladimir Vinokur

Co-founder & CPO

Chemistry, product & tech-transfer

Lab POC complete · Patents filed · Incubator-backed · Pilots → MVP → commercial, 2026–2028

Still curious how?

The science, the data, and the market are in the deck.

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