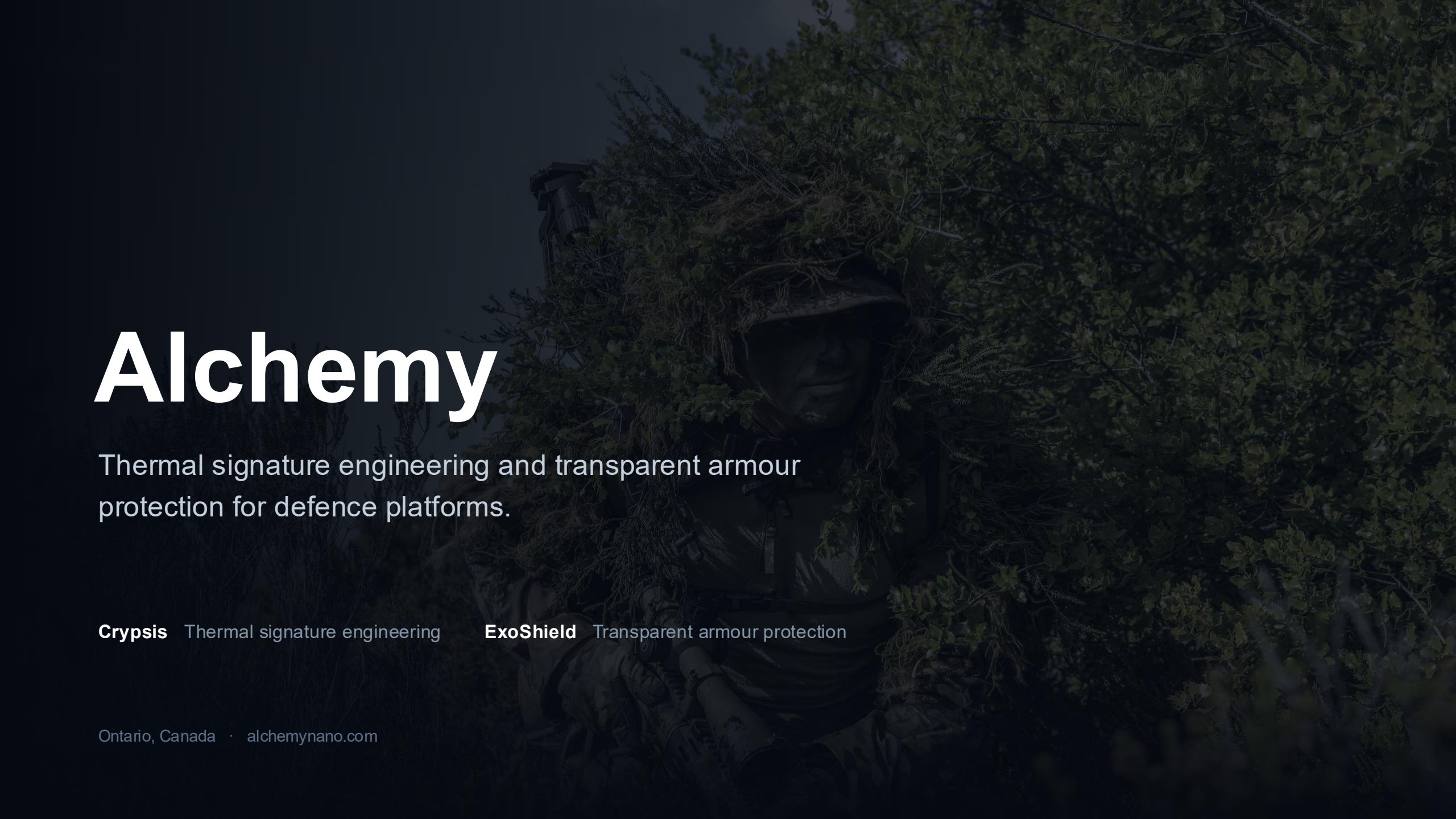


Alchemy

Thermal signature engineering and transparent armour protection for defence platforms.

Crypsis Thermal signature engineering

ExoShield Transparent armour protection

Ontario, Canada · alchemynano.com

THE COMPANY

Nanotechnology, proven on real platforms.

Alchemy is a nanotechnology company based in Ontario, Canada. Canada. We develop advanced materials technologies for the automotive and defence industries.

SUPPORTED IN POLAND

Our ExoShield distributor in Poland handles local supply, installation and technical support, and is attending the show with us.

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6 years
Developing thermal signature technology with the Canadian DND

13 years
Engineering and selling protective films for vehicle glass

56
Countries where ExoShield products are sold and installed today

7
Field trials with allied ministries of defence in Canada, USA, Latvia, Estonia

DEFENCE BUSINESS UNIT

Crypsis — Thermal signature engineering

Crypsis is a nanoparticle-based thermal signature engineering technology. Our nanoparticles can be integrated into textiles, coatings, concealment systems, vehicles, equipment and uncrewed platforms.

PROTECTION BUSINESS UNIT

ExoShield — Transparent armour protection

Nanoceramic protective film for transparent armour and vehicle glazing. It protects the inner and outer faces from the damage that ends a panel's service life, at a small fraction of the cost of replacing it.

CRYPSIS | THERMAL SIGNATURE ENGINEERING

Nanoparticle-based Thermal Signature Engineering

WHAT IT IS

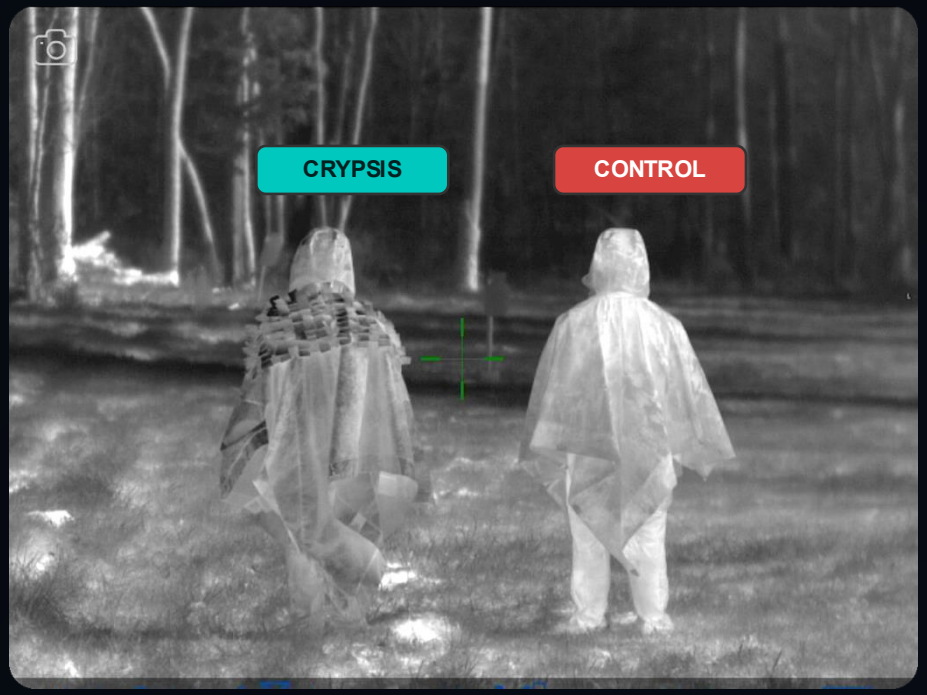
Crypsis is a nanoparticle additive that can be added to textiles, paints, coatings, and films. Crypsis nanoparticles reflect emitted heat back inward and diffuse incident radiation outward, so a treated surface tracks the temperature of its surroundings instead of standing out against them.

WHY IT BEATS WHAT EXISTS TODAY

Performance ceiling Incumbent materials are reflective, glossy or heavy. Crypsis is matte, breathable, lightweight (1 gsm), and passively adapts as the environment changes.

Breadth One platform, not one product. The same additive goes into textiles, paints, coatings and films, from soldier systems through to vehicles and UxVs.

Cost and scale A drop-in additive for your existing chemistry and production line. No exotic constructions, no new capital equipment.



20 metres. A Crypsis treated poncho against an untreated control, in the same light and the same position.

HOW YOU CAN WORK WITH US

We are a capability provider for primes and integrators, bringing both the technology and the subject matter expertise. Alchemy provides Crypsis as a package that can be adapted and integrated for your target applications.

EXOSHIELD | TRANSPARENT ARMOUR PROTECTION

Protective Films for Premature Transparent Armour Failure

WHAT IT IS

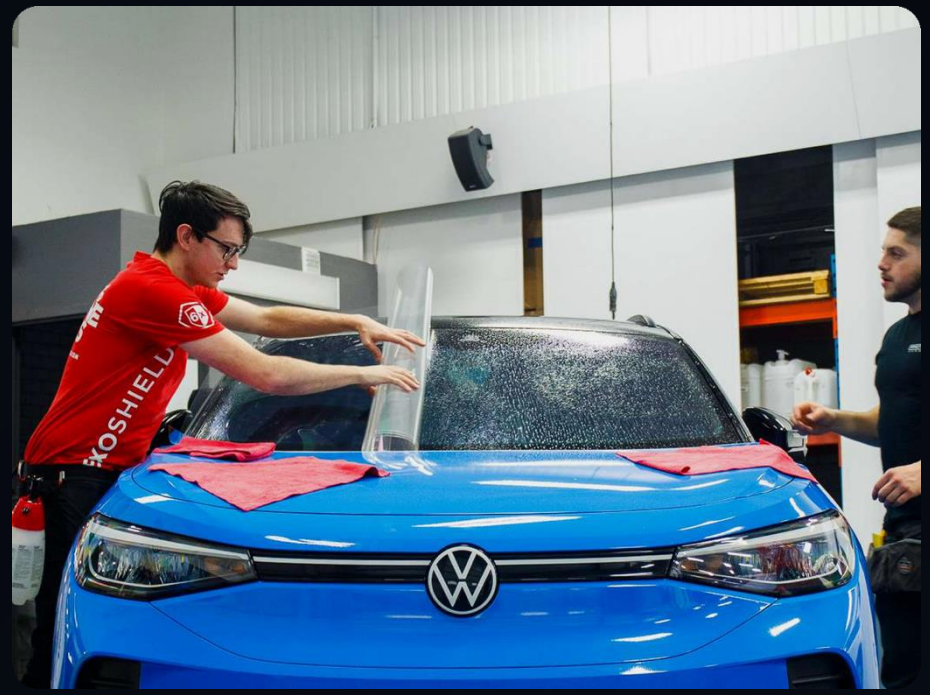
ExoShield is a nano-ceramic protective film applied to the inner and outer faces of a transparent armour panel. It protects the armour from premature failure and extends its serviceable life, typically at 2-5% of the cost of the panel itself.

THE THREE WAYS TRANSPARENT ARMOUR DEGRADES

Outer glass Stone chips picked up in normal service reduce and compromise the ballistic integrity of the transparent armour long before it is ever shot at.

Inner polycarbonate The inner face polycarbonate face wears down due to accidental contact with weapons and during cleaning, which results in premature replacement.

Delamination UV exposure causes delamination of multiple layers used in transparent armour. Reducing UV load at the surface helps prevent that failure model and reduce replacement.



ExoShield kit installation. Precut to the panel, wet applied, no specialist tooling required.

WHITE FLEET

Non-combat and support vehicles face the same problem as any commercial fleet: costly glass replacement and days of lost availability.

HOW YOU CAN WORK WITH US

Alchemy can provide platform specific kits through our Polish distributor for integration into your fleet maintenance and operations flow.

AT MSPO 2026

Who we would like to meet in Kielce.

Crypsis

Thermal signature engineering

- Military end users, SOF and conventional
- Textile mills and garment manufacturers
- Textile based system makers: tents, packs, shelters
- Paint and coatings manufacturers
- Vehicle, drone and equipment manufacturers
- Primes and systems integrators

ExoShield

Transparent armour protection

- Armoured vehicle OEMs and integrators
- Transparent armour manufacturers
- Maintenance, repair and overhaul organisations
- Fleet sustainment and O&M decision makers
- Defence logistics and procurement
- Distributors and installers across the region