

# .TRACY.

## Empowering Trust Through Traceability

### Innovative solutions for transparent and sustainable product journeys.

TRACY delivers a patented physical marking and tracing solution to ensure product origin, traceability and authenticity along the entire supply chain of commodities and products.

Tracy is an innovative solution that incorporates an element-level tracer in extremely small quantities, detectable with specialized equipment. This cutting-edge technology ensures unparalleled traceability, enabling the tracking, securing, and authenticating of products throughout their entire lifecycle.

## Textiles (cotton, silk, viscose, polyester and other synthetic fibers)

The textiles market is continuously expanding, facing significant challenges in ensuring high-quality apparel products for various applications, including clothing, home and vehicle equipment, and construction. Key industry concerns include guaranteeing transparency regarding:

- Determine the use of recycled fibers versus natural textiles fibers
- Track and trace textiles per band and/or per batch
- Determine the origin of provenance of natural fibers in case of marking, tracking/tracing natural plants
- Determine if natural fibers are coming from a forbidden region of conflict or deforestation
- The elimination of child labor,
- The prevention of counterfeit material origins,
- Compliance with regulations on materials and chemicals used.

For years, recycling textiles has been a challenge. However, with the emergence of global sustainability initiatives such as the Better Cotton Initiative (BCI) and the Global Recycled Standard (GRS), major players in the textile industry have increasingly recognized the importance of robust traceability and authenticity solutions for both natural and synthetic fibers.

### Methodology

## Patented Traceability Technology

Our solution is designed to provide full traceability across the textile supply chain, from raw material sourcing to final product distribution. It is based on atomic-level integration (elementary/isotopy solution) and can be industrially implemented without disrupting existing production processes.

For each type of textile material, we apply tailored integration methods, including:

- Dyeing,
- Coating,
- Natural integration,
- Specialized implementation techniques.

Our technology enables tracking from the earliest stages of production, such as verifying the true local origin of plant-based fibers. The markers we use are applied at extremely low concentrations, ensuring that they do not alter textile quality. They can be embedded in fibers and products at either a batch level or uniquely at the material/product level. Our implementation is designed to withstand multiple washes, maintaining long-term traceability.



## Results

### Targeted Business Issues and Challenges

Our traceability solution addresses the key challenges in the textile industry by providing:

- **Verification of the true local origin** of plant-based materials and fibers.
- **A system to ensure compliance with fair labor practices**, including the prevention of child labor and unethical working conditions.
- **The ability to measure dilution levels** and detect blending of different fiber origins throughout the supply chain.
- **Theft prevention**, thanks to the integration of unique identification codes within textiles.
- **Brand protection through an immutable physical fingerprint**, safeguarding authenticity even in secondhand markets.
- **A secure link to blockchain technology**, allowing verification of traceability at any stage of the supply chain.

## Client Benefit

### Enhancing the Traceability Framework

- Full compliance with labor laws and ethical sourcing standards.
- Protection against counterfeiting, fraud, and material theft.
- Strengthened brand reputation by ensuring product authenticity.
- Seamless integration into existing production and supply chain processes.
- Future-proof traceability solutions adaptable to evolving business and regulatory requirements.