

The Products

Stardust Materials, LLC, develops and manufactures a range of unique optical security features. STARDUST solutions can include three levels of security protection: overt (metameric), covert (taggant and/or latent), and forensic.

The STARDUST Advantage

Our mission is constant innovation. A lion's share of the company's budget is devoted to R&D. While no protection technology can guarantee that it may never be counterfeited, STARDUST is comfortably ahead of the counterfeiters. Given the amount of scientific and financial resources the company has spent on the development of the current technology, counterfeiters will find duplicating it to be tremendously difficult and expensive.

STARDUST business model is based on long-term relationship with its clients. Once a confidentiality agreement between the parties has been signed, a potential client receives samples as well as a detailed cost and implementation proposal. STARDUST provides comprehensive technical assistance and guarantees a successful implementation of the proposed security solution.



Application

- adhesive & apparel labels
- fiscal documents
- tear strips
- disk media
- stamps
- authenticity certificates

Stability

- outstanding heat resistance and light fastness
- non-reactive
- nearly infinite life time
- no abrasion
- safe for food packaging

Security

- scaleable up to high-end
- invisible to naked eye and under UV
- detectable through light media (totally hidden)
- additional forensic features possible

Verification

- quick & simple on-site check
- immediate result
- detectors battery driven, safe source
- reliable & easy to handle miniature detectors
- no training needed
- high-speed detection
- 100% in-line QC if required

Compatibility

- standard printing processes (from offset to gravure to flexo)
- standard ink formulations (easily dispersed with no agglomeration)
- polymers, synthetic yarns, lamination

Pricing

- highly competitive when compared to other security technologies on the market
- various pricing structures for taggants
- detectors may be free

Taggant Technology

To create a security marker, the powder is introduced into the protected product by means of attaching an impregnated label, printing on packaging, or permeating the packaging material. Because of their small particle size, the STARDUST materials have

been successfully imbedded into fiber, paper, film, plastic, adhesive, and ink.

The ceramics are safe for printing and packaging applications having passed the TPCH and EN71-3 tests.

IR-to-IR taggants respond to miniature harmless proprietary, IR LED optical devices. These devices are very sensitive to the presence of miniscule amounts of the ceramics on the surface of tested objects. The testers allow agents to conduct simple field tests for authenticity. Results are immediate: a green indicator lights up and a beep sounds when the marker is found on a genuine item.

In order to authenticate marked products, specially-designed detection instruments must be used.

The STARDUST technology could be applied to a product in a number of inconspicuous ways, while

- avoiding any alteration of the design and
- allowing quick authentication by a minimally trained user.

Metameric Technology

A line of our unique patent-pending materials exhibits a shift in body color when switching the illumination source from incandescent/sun to fluorescent light. These pigments are also inorganic

and, unlike common photochromic organic dyes, do not rely on UV irradiation to exhibit the effect. Security markers that utilize them require no authentication devices but ubiquitous fluorescent light sources.

under
sun/incandescent
light



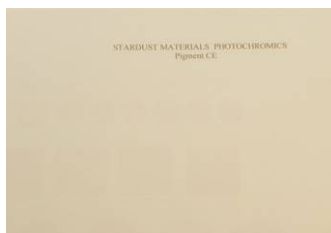
under
fluorescent
light



Latent Image and Barcode Technology

Because of the white body color of the pigments, barcodes or other prints containing them are almost invisible to the naked eye. However, observing

an impregnated print through glasses or a camera equipped with appropriate filters reveals a greatly enhanced contrast of the print.



naked eye



filtered eye or camera



invisible barcode

Modified laser barcode scanners read both the invisible and standard black barcodes including those overcoated with process colors.

Contact Info

11912 NE 95th St., Ste. 310, Vancouver, WA 98682, USA

+1-360-260-7399 office
+1-718-504-3923 fax
+1-503-358-6315 mobile

sales@stardustus.com
www.stardustus.com

