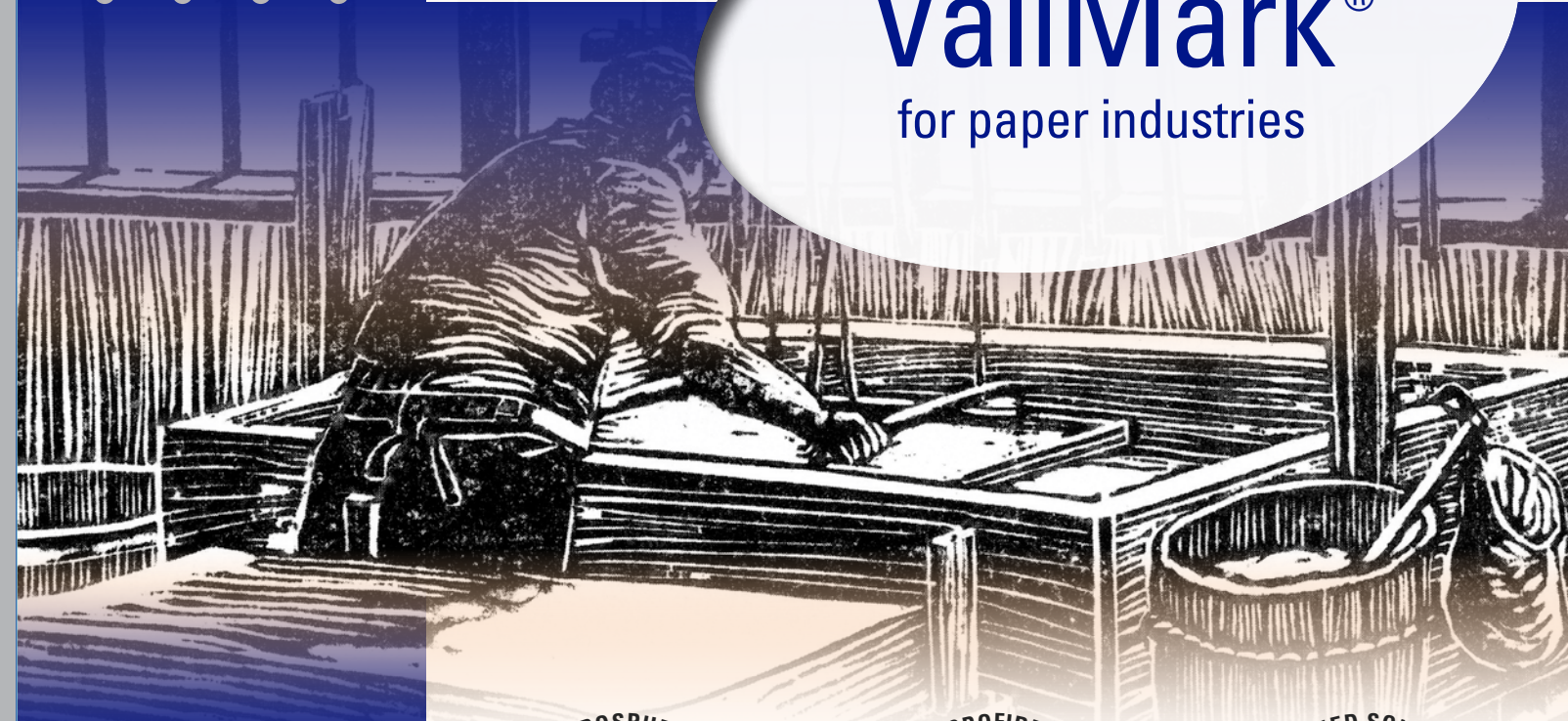


The versatility of our technologies allows for their use
in many different applications.

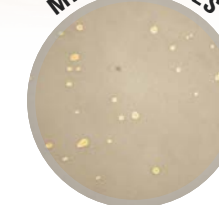


TraceTag Europe

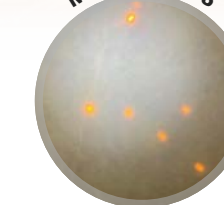
Security solutions
ValiMark®
for paper industries



MICROSPHERES



MICROFIBRES



COMBINED SOLUTIONS



For over twenty years, **TraceTag** has been providing the security document industry with its **ValiMark®** solutions to combat fraud and counterfeiting.

At the paper mill, this protection is commonly applied in pulp or within paper coatings.

The incorporation of our tracers in papers guarantees an efficient and easily controllable protection. This applies to all paper based products requiring strong authentication.

This document presents a specific overview of the microspheres and microfibers of the **ValiMark®** range.

► More information :
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MICROSPHERES

FEATURES

- **Covert:** integrated into the paper in bulk or in coatings, microspheres are invisible to the eye. They are also undetectable under UV lamps or infrared readers.
- **Instant control:** only dedicated devices will detect **ValiMark®** microspheres. There is a range of handheld readers suitable for production, laboratory or field testing. Field readers are pocket-sized tools. Forensic inspection instruments for identity documents or banknotes control can also detect **ValiMark®** microspheres.
- **Industrial application:** applied in bulk paper, hydrophobic microspheres have a natural affinity for paper fibers and are not carried away by process waters of the paper mill. This results in a cost competitive and non-contaminating security feature from one production to another.
- **Shades:** several colors of microspheres are available, which can simultaneously be integrated in the same paper.



BENEFITS

- **Light fastness:** very good resistance to UV daylight and documented photostability.
- **Specific detection:** only a combination of specific lights and filters can create the contrast required for the illumination and detection of the microspheres distributed in the paper.
- **Security :** the spherical physical characteristic of the microparticles allows to incorporate a sufficient quantity of fluorescent dye to allow their detection by a handheld reader. The counterfeiting of our microspheres by printing technique is virtually impossible.
- **Incorporation:** industrial use is facilitated by marker supply in 1% or 10% aqueous solutions. Homogenization is achieved easily and very quickly in production, in final pulp tank before the headbox of the paper machine.
- **Compatibility:** microspheres can be easily associated with other security elements including our Infrared pigments (upconverters or not), our microfibers as well as other more traditional security elements (UV pigments, fibers, planchettes ...).

MICROFIBRES

CHARACTERISTICS

- **Covert:** Invisible to the naked eye, our polyamide 6-6 microfibers are perfectly recognizable with the **ValiMark®** readers used for the detection of microspheres.
- **Substrate:** like spheres, **ValiMark®** microfibers are suitable for authentication marking of azure commercial paper as well as security papers
- **Incorporation:** due to their very small size, microfibers can be used in low concentration in the paper mass as well as in coatings. These characteristics make them both a secure and particularly economical tracer.

ValiMark® microfibers can be integrated in the mass but also onto paper surface, by size-press, without any risk to negatively influence the printability (no «picking» phenomenon).



COMBINATIONS OF FEATURES

ValiMark® microspheres and microfibers are perfectly compatible with traditional features applied to security documents.

- | | |
|--------------------|--------------|
| ■ UV fibers | ■ Watermarks |
| ■ IR tracers | ■ Embossing |
| ■ Security threads | |

APPLICATIONS

- | | |
|-------------------------|--------------------|
| ■ fiduciary documents | ■ stamps |
| ■ identity documents | ■ ballots |
| ■ immigration documents | ■ lottery products |
| ■ tax labels | ■ wine labels |



ValiMark® désigne une famille de marqueurs invisibles dont l'exploitation répond à une approche originale de la fluorescence.