



SECURITY THREAD

Oberthur Fiduciaire

(Paris 1842)

Title: Pulsar™
c.2021-2022

Pulsar™ is a new generation of micro-optic thread technology that combines shifting colour and dynamic movement.

The Art of Pulsar™

by

Oberthur Fiduciaire

Introducing

Pulsar™ threads, a dynamic response to the threat of counterfeiting



What are Pulsar™ threads?

Pulsar™ is a new generation of micro-optic thread technology that combines shifting colour and dynamic movement.

Pulsar™ uses the latest micro-optical techniques to create a secure and high impact security thread which is ideally suited to protect banknotes against the latest counterfeit threats.

How do Pulsar™ threads work?

The Pulsar™ structure consists of an array of curved micro mirrors that reflect light back to the observer.

As the thread is tilted along the vertical and horizontal axes, the micro mirrors generate subtle colour variations and dynamic rippling movements.

The micro mirrors can be assembled in different ways to produce a range of eye-catching effects and customisable designs.



Why choose Pulsar™ threads?

Pulsar™ is one of the most technically advanced microoptic security threads on the market. Its dynamic movement, colour, and customised optical effects can be tailored to each banknote design.

A robust and long-lasting thread, Pulsar™ can be used with high durability papers. It can also be varnished and is machine readable.

Choose Pulsar™ and benefit from:

- Dynamic movement
- Instant visual authentication
- Full customisation
- Effective design integration

Pulsar™ is a premium thread bringing a strong Level 2 security with stunning aesthetics for mid and high range denominations.

Pulsar™ threads colour shift options

Pulsar™ has innovative micro-optics that produce dynamic visual effects. A fully automatic workflow has been engineered to create the dynamics of the wished effect with dedicated software simulator.

A digital studio help designers to simulate the final visual effects that will plays the best with the banknote.

The open-ended graphic design can display visual effects or innovative micro-optics.

Available in a choice of colour shift pairs:

- Green to Blue
- Magenta to Green
- Gold to Green
- Green to Magenta

Pulsar™ is available from 3mm to 6mm widths and with optional UV inks. Pulsar™ can also be magnetised for sorters.

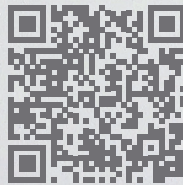
Examples of dynamic effects:

- **Ripple**
- **Dynamic**
 - Mirror
 - Pop-up
 - Wave



Pulsar™ did you know?

Pulsar™ is inspired from the observation of sand dune in the desert and the beautiful sight of declining sunlight falling on their slopes always in a smooth fashion revealing multitude of alternation of shadow and light, this is the way our curved micro mirrors have been calculated at microscopic scale to generate the Pulsar™ effects.



Group Headquarters & Sales Office

Oberthur Fiduciaire SAS, 7, Avenue de Messine, CS 30003, 75384 Paris Cedex 08, France

Tel: +33 (0)1 42 99 77 00

www.oberthur-fiduciaire.com