

# Technical data sheet

## SECURING BUSINESS AROUND THE WORLD

### OpVantia™



## Embedded security thread Machine-readable document security

Protect your paper documents and packaging against fraud with TSSI's embedded security thread - OpVantia™. Introduced into the paper at the point of manufacture, the OpVantia™ thread contains a permanent unalterable number which is used to prove a document's authenticity.

Each document protected by OpVantia™ thread is read by a special reader that verifies the thread's authenticity and decodes the embedded number.

Working with paper-mills and security printers, paper protected by OpVantia™ offers a new level of protection to vouchers, tickets, certificates and other high value documents.

### FEATURES

- Fully embedded or windowed security thread
- Permanent feature protects against fraud
- Machine-readable for counterfeit detection
- Does not interfere with document branding and design
- Available in black, silver, gold and colour shift

### BENEFITS

- Permanent number which cannot be erased or altered
- Provides full audit trail through the document lifecycle
- Documents can have batch or incrementing number
- Detecting counterfeit is done by a reader, not an individual
- Complements overt security features like holograms and OVDs

## Specifications - applied to document

OpVantia™ - security thread	Embedded into document
Colours	Black, silver and colour-shift (e.g. red / yellow)
Size (width)	1.2mm and 1.5mm
Size (length)	27mm (batch code)
Thickness	30 ± 2µm
Available codes	Over 2 million different batch codes
Temperature	Applied to document: -10°C to 60°C
Humidity	Applied to document: up to 90% RH

## Specifications - supplied in bobbin format

OpVantia™ - security thread	Supplied in bobbin format
Colours	Black, silver, gold, colour-shift (e.g. red / yellow)
Codes	Approximately 40,000 (batch) codes per km
Reel length	Up to 4km
Bobbin size	1.5" inner and 4" outer diameter
Supplied as	Wound onto bobbins
Temperature	Storage: 0°C to 50°C
Humidity	Storage: up to 90% RH

## Document security - TSSI's product range

	DeedMark (hot foil)	DeedMark (hot roll)	OpVantia (thread)	SmartMark (hot foil)	OptiGard (hot foil)
Surface feature	Yes	Yes		Yes	Yes
Embedded			Yes		
Windowed			Yes		
Unique codes	Yes			Yes	
Batch codes	Yes	Yes	Yes	Yes	
Machine-readable	Yes	Yes	Yes	Yes	Yes
Simple Yes / No					Yes



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