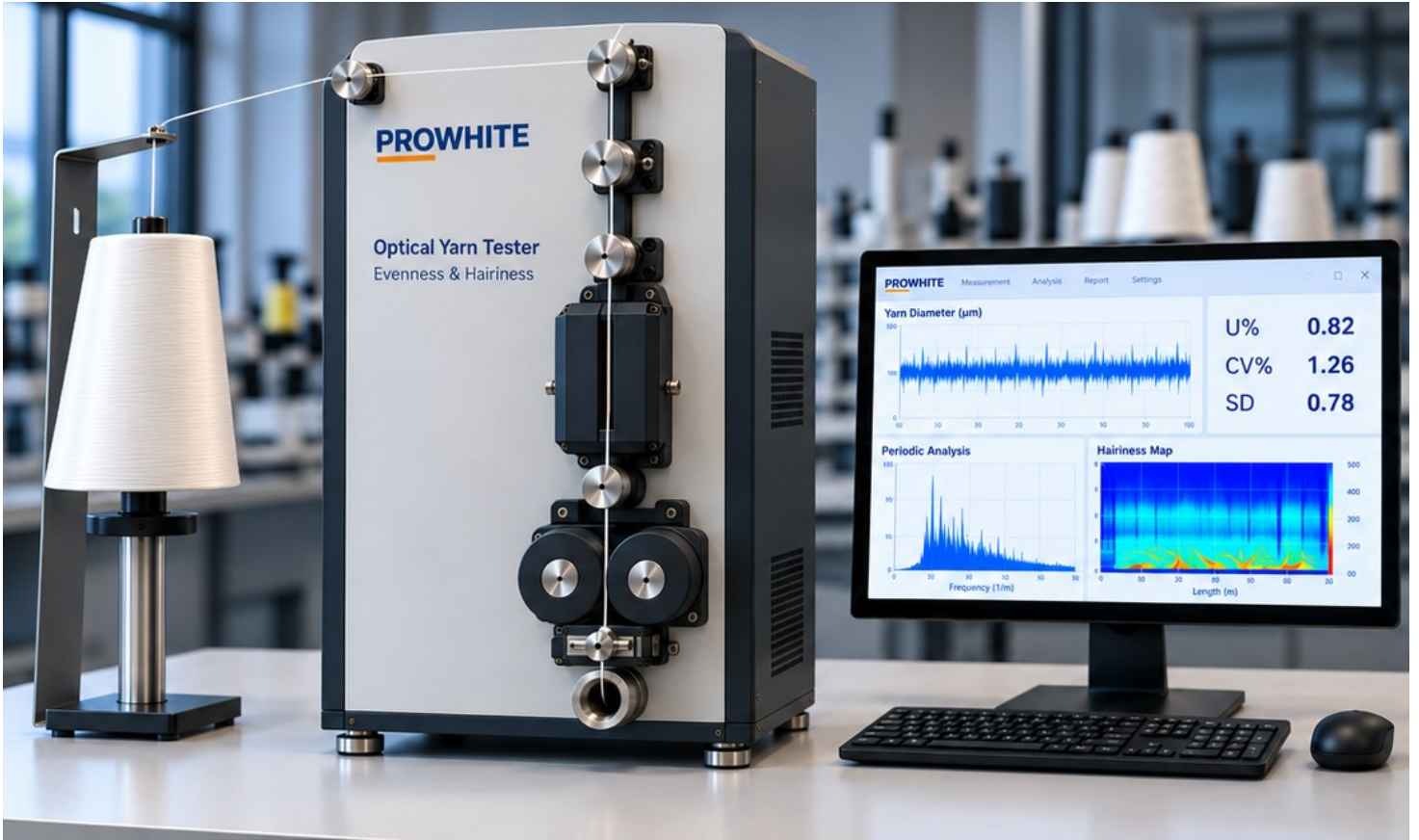


OPTIYARN

PW-OPT01

Optical Yarn Evenness & Hairiness Tester

Optical diameter, evenness, hairiness and filament anomaly analysis.
PC-based evaluation with PDF reports and CSV data export.

**20-300 m/min**

MEASUREMENT SPEED

0.5 mm

SAMPLING INTERVAL

PDF / CSV

REPORT / EXPORT

Precision at Every Stage. Confidence in Every Test.

See the yarn in detail

Optical evaluation of yarn geometry and surface characteristics, supported by statistical analysis along the tested length.

01 Optical diameter & evenness

Optical yarn diameter evaluation and analysis of diameter variation along the tested yarn.

02 Yarn hairiness

Evaluation of protruding fibres along the yarn for surface quality assessment and comparison.

03 U%, CV% & SD

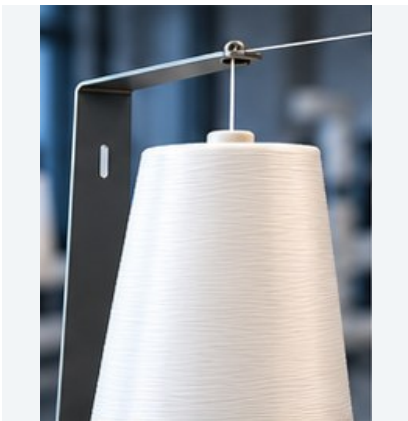
Statistical evaluation of the optical diameter signal using U%, coefficient of variation (CV%) and standard deviation (SD).

04 Filament anomaly analysis

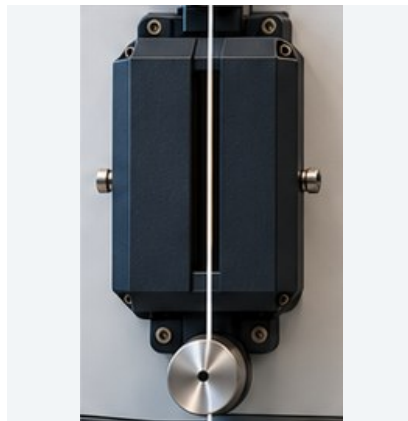
Evaluate protruding filament-related irregularities along the tested yarn.



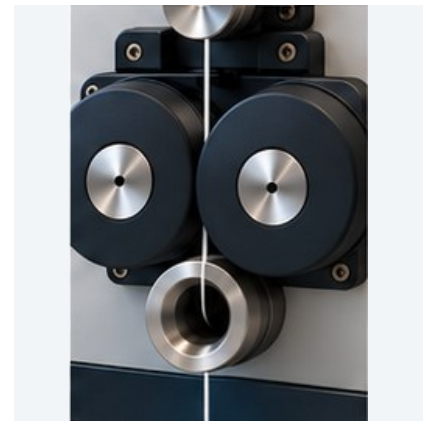
Measurement zone



Yarn presentation



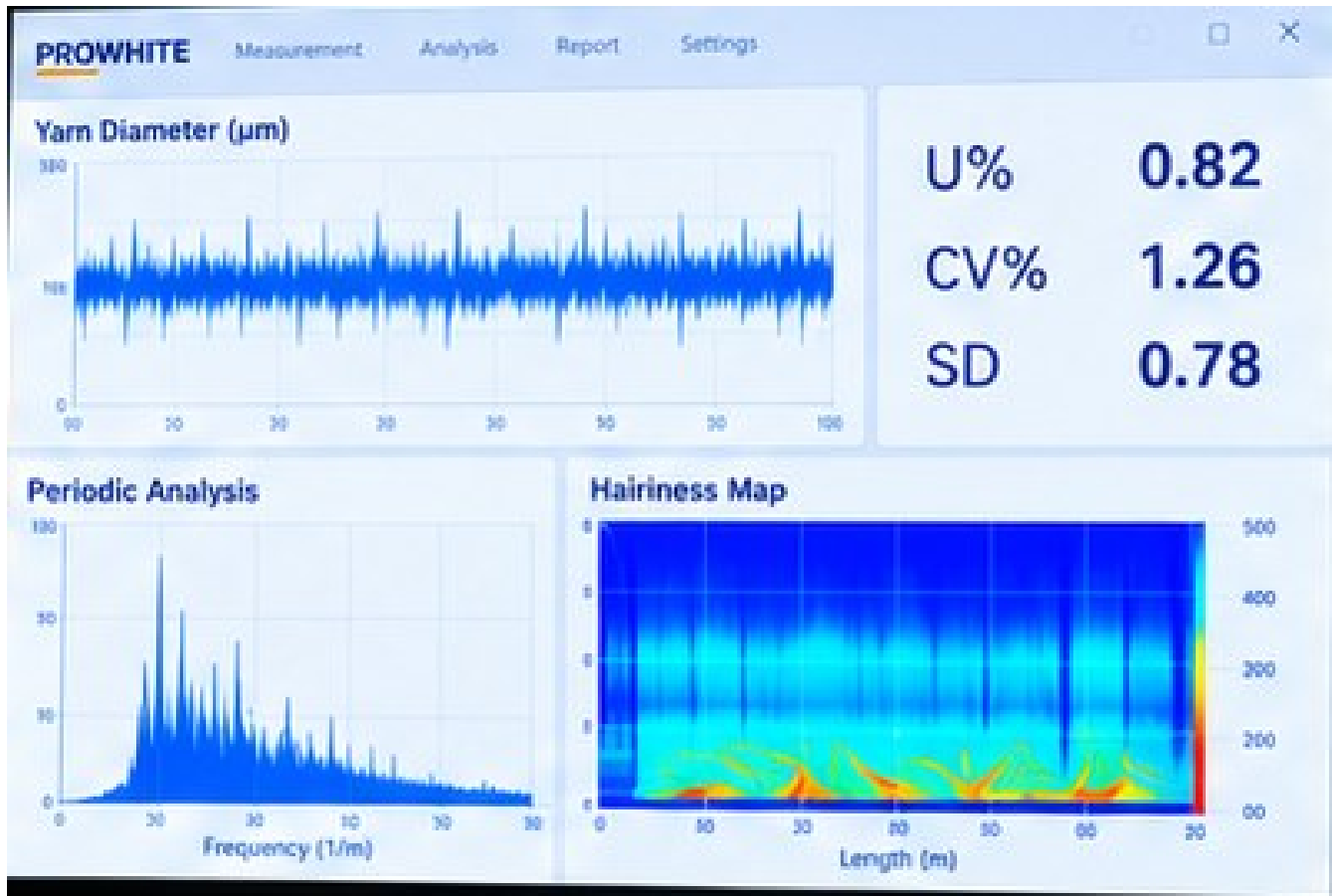
Optical evaluation



Yarn transport

From signal to insight

Review optical diameter variation, investigate periodic patterns and bring the results together in a clear test report.



Software display illustration; values shown are illustrative.

Statistical evaluation

U%, CV% and SD from the optical diameter signal.

Periodic error analysis

Spectrogram evaluation of recurring yarn variation.

PC-based review

Review graphical results and yarn surface anomalies.

PDF / CSV

Create PDF reports and export analysis data as CSV.

Technical specification

Optical measurement at 20-300 m/min with readings at 0.5 mm intervals along the yarn. PC software combines statistical and graphical evaluation with PDF/CSV output.

MEASUREMENT & ANALYSIS

Measurement speed	20-300 m/min
Sampling interval	0.5 mm along the yarn
Diameter & evenness	Optical yarn diameter; U%, CV% and SD
Surface analysis	Yarn hairiness and filament anomalies
Periodic analysis	Spectrogram and periodic error evaluation
Software & output	External PC software; PDF reports and CSV export

METHOD REFERENCES

ASTM D5647-07(2025): photo-electric yarn hairiness guide.
ISO 139:2005 + Amd 1:2011: sample conditioning and test atmosphere.
ASTM D2258/D2258M-16(2022): yarn sampling practice.

Evenness statistics are calculated from optical diameter data.

PROWHITE Teknoloji A.Ş.

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