© flairimages / Fotolia
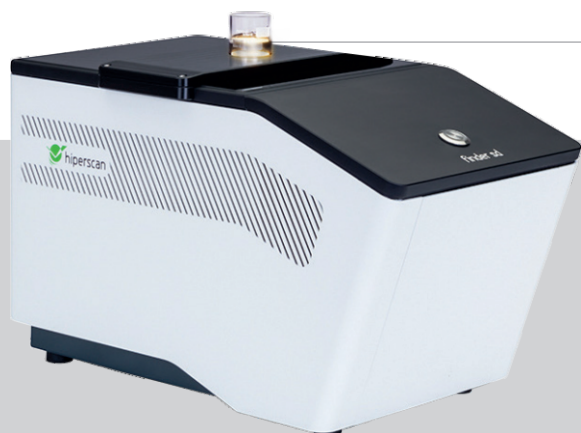
NIR SPECTROSCOPY IN THE TEXTILE INDUSTRY

Ensuring the identity and quality of raw materials, intermediate and final products become more important with increasing complexity of production systems. With NIR spectrometers, operations in textile processing can be reliably monitored to the second. With the implementation of the Finder SD analyzer in the production or recycling process, quality of different fabrics can be checked by the time-saving and non-destructive analysis. Due to the Scanning Grating Technology that is used, the system is fast, robust and reliable.

The dust-proof and water-resistant Finder SD analyzer can be integrated at any workplace and for a variety of functions. Due to the instruments calibration standards the system constantly checks itself or is recalibrated. A fast and easy integration into user-specific applications is possible with HiperScan instrument drivers.
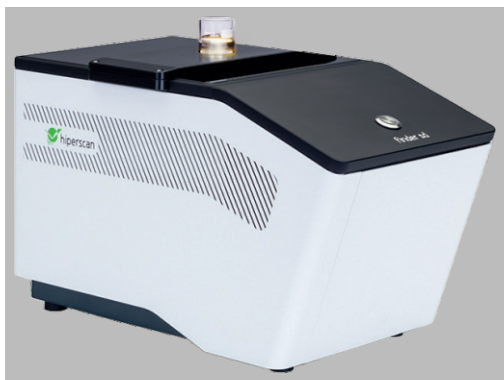
Benefits for your Industry:

+ **Monitoring quality parameters or composition of textiles**

+ **Identification for sorting management**

+ **Automatic inspection of incoming goods for storage system suppliers**

Agriculture	Laboratory Industry	Food
Recycling	Pharma	Chemical Industry

Finder SD

The dust-proof and water-resistant Finder SD analyzer is multifunctional. Due to the instruments calibration standards the system constantly checks itself or is recalibrated.

Technical details of
FINDER SD

✔ **temperature-stabilized**   ✔ **device-internal calibration standards**

✔ **IP 65**   ✔ **patented MEMS grating technology**

✔ **robust**

Technical Details

Spectral range	1,0001,900 nm
Spectral resolution	10 nm*
Stray light	0.2 %
Measuring time	5 s (averaging over 500 scans), configurable 115 s
Detector	InGaAs single detector, uncooled
Wavelength accuracy	± 0.5 nm*
Wavelength reproducibility	± 0.2 nm*
Photometric reproducibility	± 0.1 %*
SNR	> 2,000:1 (averaging over 2,000 scans)* > 1,000:1 (averaging over 500 scans)*
Photometric linearity deviation (max/RMS)	1 % / < 1 %*
Light source	Tungsten halogen lamp
Probe/optical input	Diffuse reflection, 23 mm Ø; sample cup 32 mm
Thermal stabilization	Yes
Dimensions	225mm x 235mm x 385mm
Weight	9 kg
Interfaces	USB type B (additional electronical interfaces, e.g. for motor control or input for sensors)
Operating temperature	Typ 55: 15 to 35 °C or Typ 50: 5 to 30°C
Storage temperature	-20 to 60 °C (non-condensing)
IP code	IP 65
Power supply	100 - 240 VAC +/- 10%, 50 - 60 Hz
Power consumption	78 W / 36 W / 5 W (warm up / operation / sleep)
Software	Software for data acquisition and visualization; optional: drivers and software development kit for integration into your own application (operating system: Windows 7 SP1, Windows 8.1, Windows 10) Software for data acquisition and generation of chemometric modells (operating system: Windows 7, Windows 8.1, Windows 10)

* overall spectral range

Scope of delivery:

✔ **Finder Hardware**   ✔ **Black and white reference**   ✔ **5 sample cups**

✔ **Software**   ✔ **1 transflectance insert for liquids**