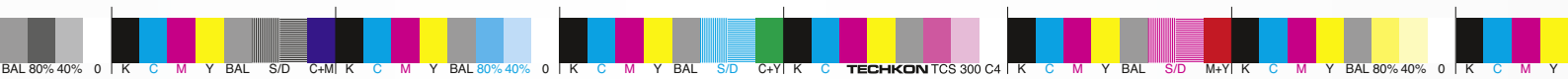


**TECHKON**  
Erfolg ist messbar



TECHKON SpectroDens



The model, a diva. The stylist loves details.  
The photographer, a star.  
And now it's up to you to bring it to paper.

### A measurement device for all applications

Using measurement technology for quality assurance in print is a universally accepted practice these days. SpectroDens is your all-purpose, modern measurement device. Whether it be in pre-print for verifying proofs, for ongoing quality control at the printing press, during delivery inspection of paper and print products or in a color lab, SpectroDens is exceptionally suitable, whatever your application. Thanks to the individually adjustable display functions, you can quickly set up the device for your particular job.

### Two devices in one

The product name alone suggests the multiple uses of the device. As a spectro-densitometer, SpectroDens combines the qualities of a highly accurate spectro-photometer and an easy-to-use densitometer. Measurement is spectral, i.e. the entire color information is precisely registered. The data is converted into measurement data for descriptive analysis and display:

- Densitometric data is widely used in quality control during the printing process.
- Colorimetric data is used in the evaluation of print proofs, the creation of color profiles in color management and the color matching and formulation of inks.

# TECHKON SpectroDens – Spectro-Densitometer

## Densitometry

A push of a button provides you with solid density as well as all useful additional information such as dot gain, dot area, gray balance and print contrast. In the automatic measurement mode the device always displays the relevant information instantly. You can even quickly and easily produce complete printing curves. The spectral measurement technology calculates not only density values for CMYK, but also exact data for the density of spot colors.

## Colorimetry

All standard colorimetric functions are displayed clearly. Even the entire CIE L\*a\*b\* color circle appears in the display. Reference colors and complete digital color books can be saved in the color library.

## Standardized measurement

The device works strictly according to the standards valid for the graphic industry. Select different status filters for density measurement in the device settings. A special technical feature is the polarization filter which can be activated by a push of a button.

Using the latest LED technology, the new SpectroDens provides D50 illumination and therefore fulfills the M0 – M3 measuring conditions in accordance to ISO 13655.

In addition all SpectroDens devices have tracking wheels, which ensure a straight run and allow besides spot measurements short scans of color patches or step wedges. Thus an Ugra/Fogra media wedge can be measured within only 15 seconds; an ISO/PSO conformity check and a printing curve can be done within only 3 seconds.

## Software SpectroConnect

The SpectroConnect software supplied with the device displays the measurement data clearly arranged on a computer monitor. Just connect SpectroDens by USB cable to a PC. Optionally the SpectroDens devices can transmit the data even wirelessly via WLAN to the computer.

Measurement data can be transferred e.g. into Microsoft Excel™ or other applications. The integrated color library is especially easy to use. For example, you can load complete “digital color books” into the device. An import of color values in CXF® format is possible.

The software also serves as the connecting module for other applications, e.g. programs for the production of printing curves, for colorimetric quality control or for checking the compliance of printing products to ISO standards.



For more information please visit  
[www.techkon.com](http://www.techkon.com)

**SPECTRO  
DENS**

# SpectroDens

## Versions and functions



We supply SpectroDens in three types of performance packages: The model Basic with all density functions and the Advanced version which adds essential colorimetric functions and a color library. The fully equipped flagship model SpectroDens Premium meets all demands with regard to quality control. All SpectroDens devices can also be used for short scans and feature a brilliant color display. Optionally data transmission by means of a WLAN module is possible.

### SpectroDens Basic

- Automatic density
- Density CMYK (with reference measurements)
- Dot area
- Dot gain
- Print contrast
- Gray and color balance
- Ink trapping
- Printing curve
- Density spectrum
- Spectral density for spot colors
- Trend function ExPresso mini
- Slur/doubling
- Dot area to Yule-Nielsen for printing plates
- LED technology provides measurement conditions M0 – M3 according to ISO 13655

### SpectroDens Advanced

Same functions as SpectroDens Basic and additionally:

- CIE L\*a\*b\*
- $\Delta E^*a^*b^*$
- CIE L\*C\*h\*ab
- CIE XYZ
- CIE color circle
- $\Delta E^*cmc$
- $\Delta E^*CIE94$
- $\Delta E^*CIE2000$
- Remission spectrum
- InkCheck: Color control of spot colors
- Color library with up to 20 color books and a total number of 3000 reference values

- Memory capacity for 1200 sample values and 300 reference values
- GrayGuide according to Gracol G7™

### SpectroDens Premium

Same functions as SpectroDens Advanced and additionally:

- Ugra/Fogra media wedge evaluation
- ISO-Check: Color control according to ISO 12647
- CIE L\*u\*v\*
- CIE L\*C\*h\*uv
- CIE xyY
- DIN Lab99
- Metamery index
- Whiteness
- Yellowness
- Pass/fail tolerance
- Average

SpectroDens can be upgraded post-purchase by program upgrade to higher versions (charged service).

### Software

SpectroConnect requires Windows XP, Vista, 7 or 8

### Contents

- Measurement device SpectroDens
- Charging console with white standard and AC adapter with universal plugs
- Carrying case
- USB cable
- CD with software SpectroConnect
- Manual with ISO 9000 compliant certificate

### Optional accessories

- Small apertures
- Print control strip TCS Digital
- Color reference SpectroCheck
- WLAN module

## Specifications

Measurement technology	Spectral remission measurement and color density determination to ISO 5-3/4
Measurement geometry	0/45° optics to DIN 5033
Spectral range	400 to 700 nm in 10 nm steps
Measurement aperture	3 mm round standard; 1.5 mm round optional
Light source	LED
Polarization filter	Twice linear crossed, switched on and off per button release
Measurement time	Approximately 1 second per measurement; max. 8 seconds in scan mode
White reference	Absolute and relative; absolute white standard integrated and protected in charging console
Illumin. types / Standard observer	A, C, D50, D65, F 2/7/11 / 2°, 10°
Density filter	DIN 16536, DIN 16536 NB, ISO/ANSI T, ISO/ANSI I, ISO E; Advanced, Premium version: Dmax
Density measurement range	0.00 – 2.50 D
Repeatability	0.01 D; 0.03 CIE $\Delta E^*a^*b^*$
Inter-instrument agreement	0.01 D; 0.3 CIE $\Delta E^*a^*b^*$
Display	Color LC backlight display, 320 x 240 pixels
Power supply	Rechargeable NiMH battery, regulated recharge via charging console with AC adapter, 100 – 240 V, 47 – 63 Hz, up to 10.000 measurements per battery charge, battery level control
Communication port	USB; WLAN module optional
Weight	480 grams
Dimensions	65 x 55 x 190 mm (approx. 2.6 x 2.2 x 7.5 inches)
System requirements for TECHKON software	Windows XP, Vista, 7 or 8; 32- and 64-bit, minimum: IBM-compatible PC with Intel Core Duo processor or comparable processor, 1 GB RAM, 2 USB ports