Hardware:

SpecEl-2000-VIS Wavelength 450-900 nm, Thickness 1nm … 8µm, Resolution 0,1 nm, Analyzer for refractive index (n) and extinction coefficients (k) as a function of wavelength, Measurement Speed 5-15 seconds, Repeatability 70 nm SiO_2 on Si: 1Å, User-friendly, simple-to-use 32-bit Windows™ Software SpecEl-V 3.4 and Computer included.

Options:

Mapping 6”-SE 150 x 150mm XY-scanning-stage, fully automatic, 2 Motors with Encoders, Control System integrated 2 -Axis CNC Controller RS-232 Interface

SpecEL-Vision Video microscope with extra port for NanoCalc-VIS reflection measurement. Magnification 5x, 10x or 20x. Illumination (tungsten-halogen), SMA connector. USB connection to PC, software modul for vision (video picture) in SpecEL software included. Manual fine adjustment axis for height travel included.

SpecEL-Microspot Microspot Spotsize: 200x400µm (option 400 x 800 µm).This Option is useful in combination with the Option SpecEL-Vision. SpecEL Microspot software modul included.

Reference Thin Film Thickness Standard, Si-SiO_2-Step-Wafer, 5 Steps 0-500 nm, calibrated

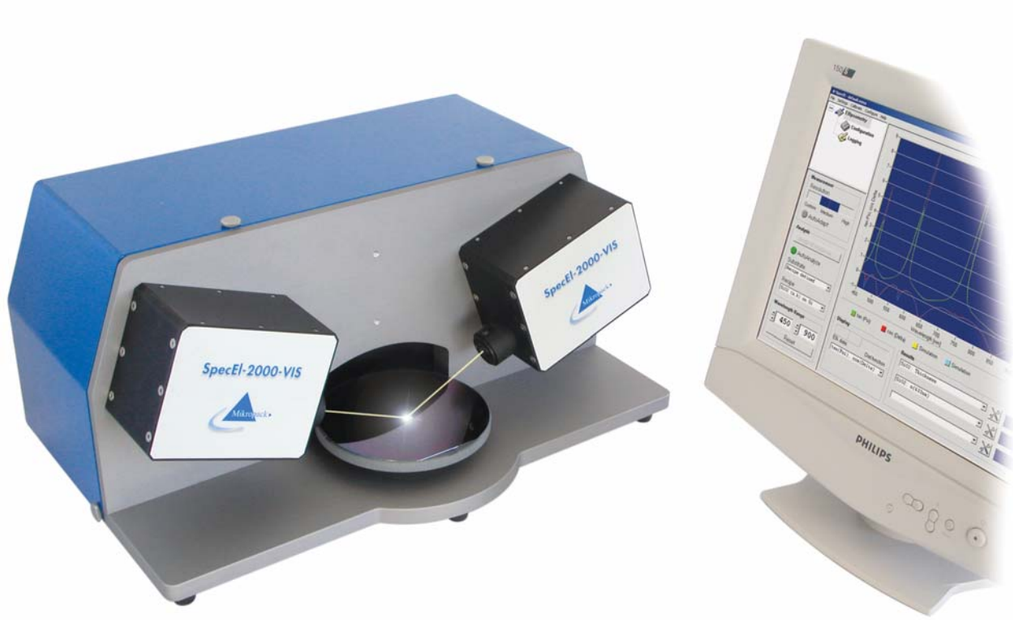
VAC-Chuck 6” Wafer-Chuck with non-conductive Hardcoat-Surface, Ceramic Pins, Vacuum-Option, Vacuum-Tweezers Entrance

Software:

SpecEl-V 3.4 User-friendly, simple-to-use 32-bit Windows™ Software for Ex Situ direct measurement of Thickness and n&k coefficients, recipe structure, administrator/user capabilities.

SpecEl-Mapping Mapping module software (needs SpecEl Software) Mapping Generator with control-software for Mapping-6”-SE

Spectroscopic Ellipsometer

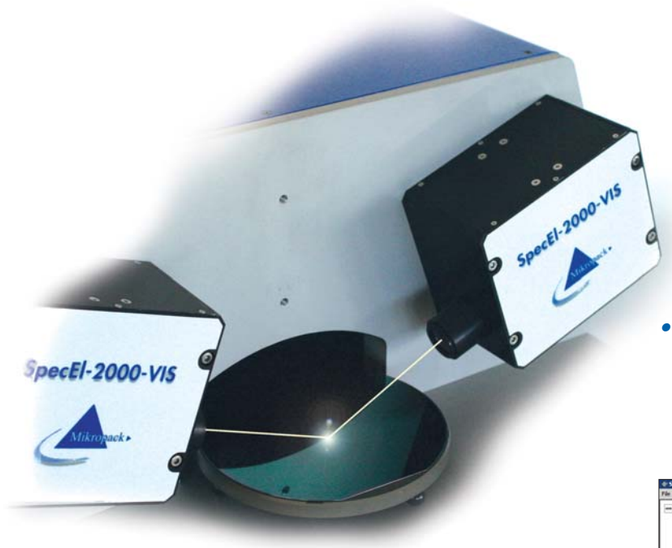


SpecEl-2000-VIS

Marketing Center Thin Film
Maybachstraße 11
D-73760 Ostfildern (Germany)
Phone +49(0)711/34 16 96-0
Fax +49(0)711/34 16 96-85
e-Mail: ThinFilm@Mikropack.de
Internet: www.mikropack.de

Your local distributor is:

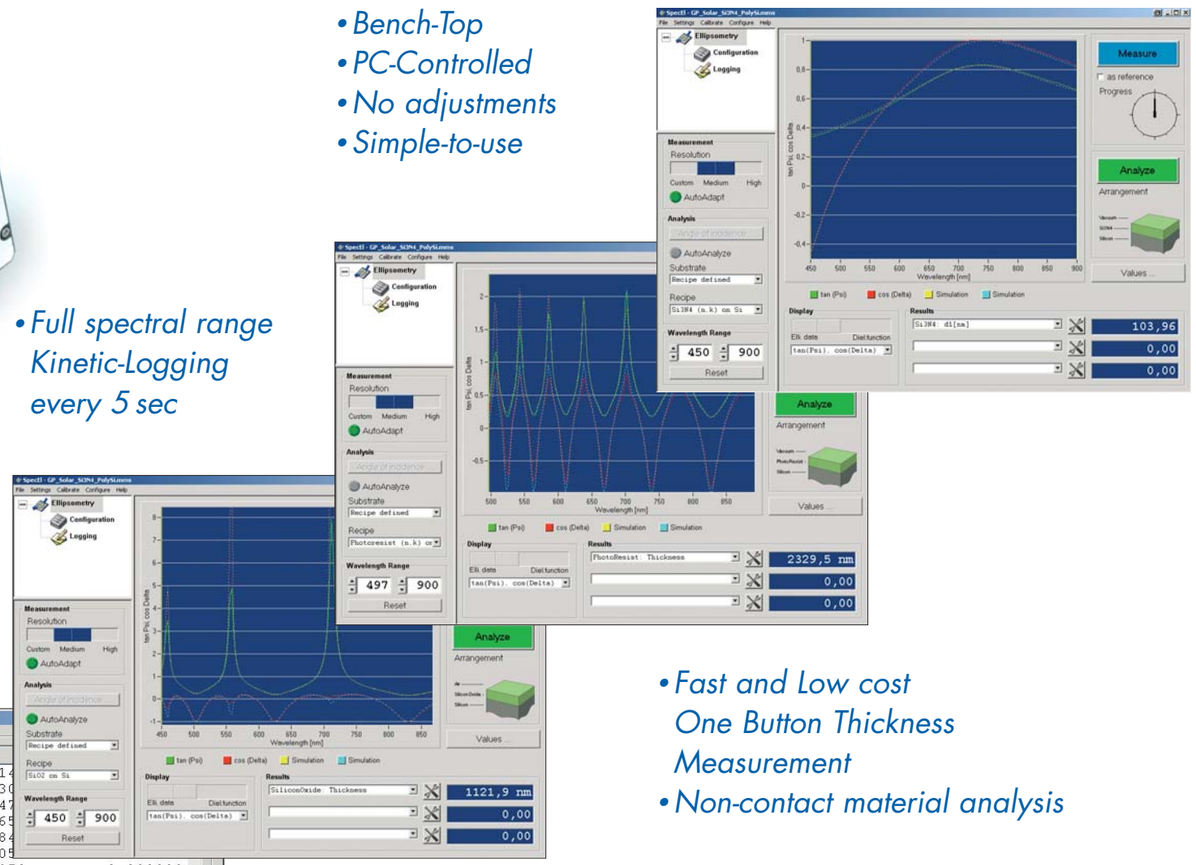
Spectroscopic Ellipsometer

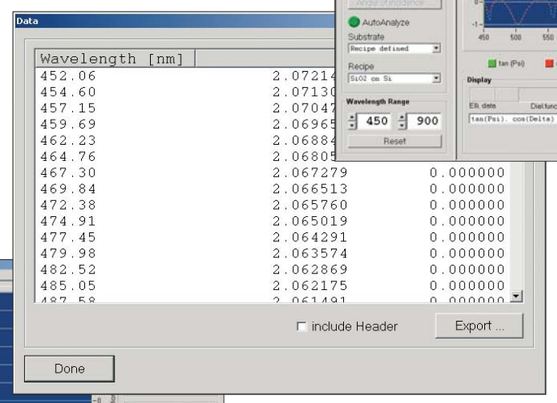


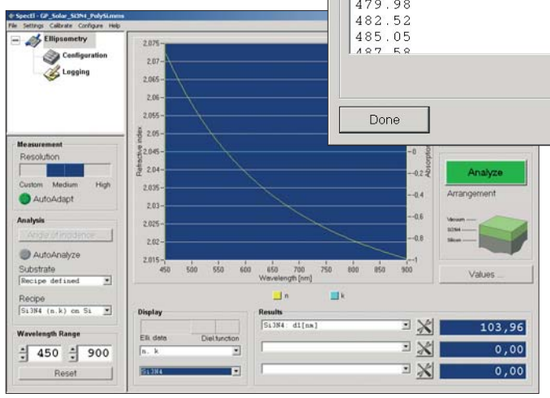
- *Recipe-Concept*
- *Administrator/ User-Mode*
- *Export Capabilities for thickness, fit value, n & k, psi & delta*

- *Bench-Top*
- *PC-Controlled*
- *No adjustments*
- *Simple-to-use*

- *Full spectral range Kinetic-Logging every 5 sec*

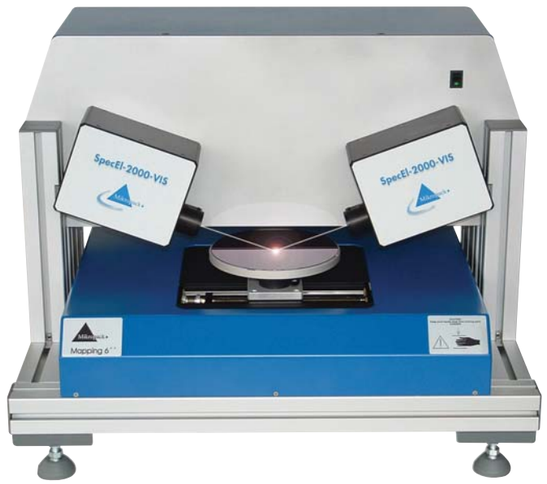






- *Optical Constants*
- *n, k Measurement*
- *Direct evaluation*
- *Different dispersion models*
- *Online and off line analysis*

- *Fast and Low cost One Button Thickness Measurement*
- *Non-contact material analysis*



Specifications SpecEl-2000-VIS

Performance

Film Thickness Range:	1 nm – 8 µm
Thickness Resolution:	0,1 nm
n & k Analyzer:	Table 450 – 900 nm in 1nm steps
Math. Models :	Constant refractive index, harmonic oscillator, Cauchy, Sellmeier, Dielectric, Imported dielectric function, KKR Drude, Brendel, Kim, OJL interband transition model, Campi-Coriasso, Tauc-Lorentz, heterogeneous materials (multi-phase composites) effective medium concepts for inhomogeneous materials, Maxwell-Garnett, Bruggeman, Looyenga formula, Bergman representation and more
Measurement Speed:	5-15 seconds
Repeatability:	70 nm SiO2 on Si, cos(Delta) ±0.0003, tan(Psi) ± 0.0002

Optical

Spectral Range:	450 - 900 nm (other ranges on request)
Spectral Resolution:	4 nm
Beam Diameter:	2 x 4 mm (Microspot Option 200 x 400 µm)
Angle:	70° (other angles on request)

Mechanical Tolerance

(for Sample Adjustment)

Height Adjustment:	± 1,0 mm
Angle Adjustment:	± 1° tilt

Software: One Button Thickness Measurement, simple-to-use 32-bit WindowsXP™ Software included, Recipe Structure, administrator/user capabilities

Computer: IBM compat. PC with WindowsXP™ operating system included

Options:

Mapping:	Range: 6", 150 x 150mm
Accuracy:	± 10 µm
Type:	Fully automatic, 2 motors, encoder
Control:	Integrated 2 – Axis Controller
Interface:	RS-232

Vision-Option: Video microscope with different magnifications

VAC-Chuck 6": Wafer-Chuck for 6'' with non-conductive Hardcoat-Surface, Ceramic Pins, Vacuum-Entrance

300 mm Options: Are available on request