

StraDex^{t6-60}



StraDex t6 – 60 sensor

Your benefits:

- ✓ Non-contact measurement
- ✓ Fast and robust measurements with 4 kHz repetition rate
- ✓ Universally applicable with min. 6 mm working distance
- ✓ Automatic focussing over 5 mm height

for thin film thickness evaluation

The **StraDex t** series is developed to measure thin transparent films under production conditions (temperature, noise/vibrations, etc.). It enables the determination of layer thicknesses down to 300 nm.

This is achieved by a fast interferometric recording technology and the corresponding efficient calculation algorithms.

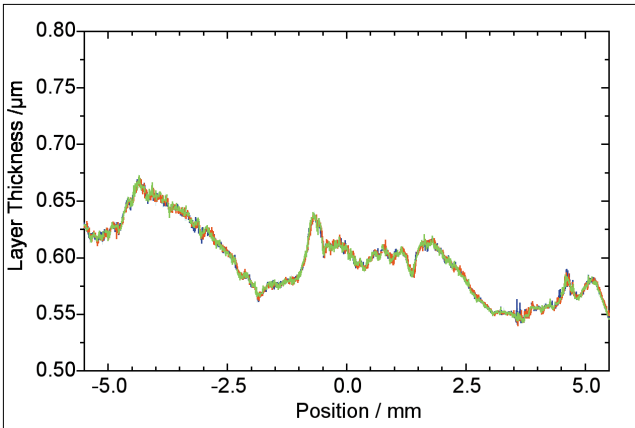
By the use of x/y stage the inspection of thin layers within a 2D-area is possible.

Applications:

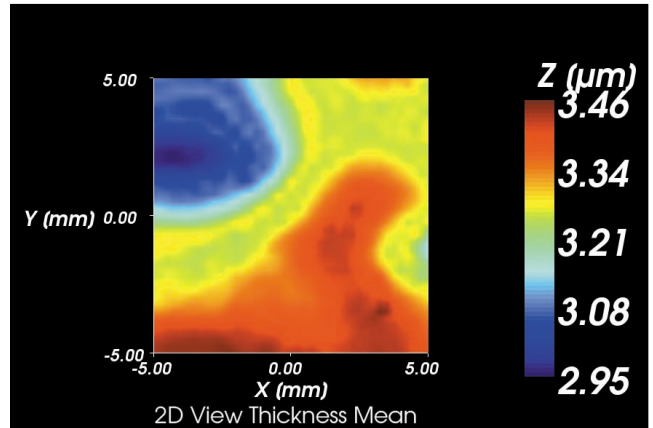
- Inspection of thin layers on semiconductor substrates
- Quality control of coatings on plastic substrates

Object materials:

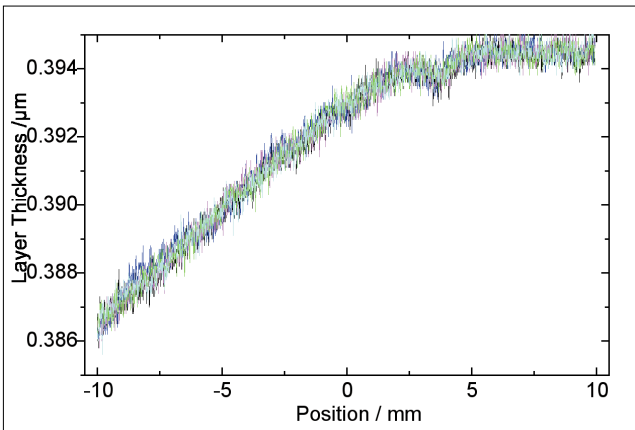
- Thin oxide or nitride layers on semiconductor substrates (e.g. GaN, SiO₂, SiN. etc.)
- Transparent plastics (e.g. PMMA, PS, PC, PE, etc.)
- Photoresists



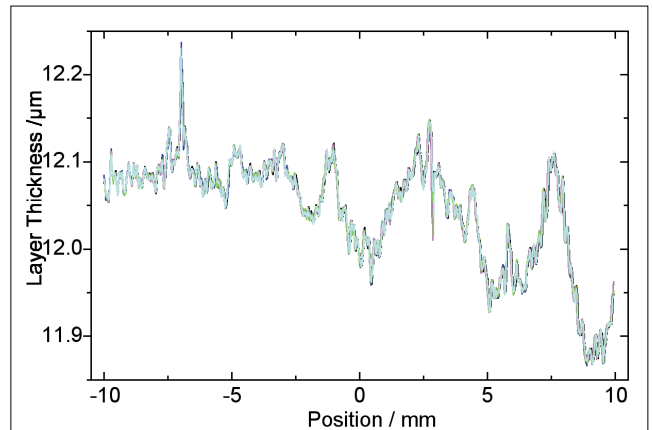
Thickness measurement of a 0.6 µm NeoCryl(R) coating on a PET cast film. Five repetitions along a 10 mm line scan illustrate a reproducibility of 2 nm. The total thickness variation over the length of 10 mm is 0.125 µm.



2D Thickness distribution of a 3 µm NeoCryl Coating over an area of 10 x 10 mm². The mean thickness over the measured area is 3.27 µm with a total thickness variation of 0.52 µm.



Thin (390 nm) SiO₂ Layer on a silicon wafer. Five repetitions of a 20 mm line scan demonstrate a reproducibility < 1 nm. Please note that the full scale on the thickness axis is only 10 nm. The total thickness variation is 7.7 nm over the profile of 20 mm.



Thickness measurement of a 12 µm polyester foil. Five repetitions of the profile of 20 mm length demonstrate a reproducibility 5 nm. Here the total thickness variation is 0.36 µm over the profile of 20 mm length.

Working distance:	6 – 11 mm
Layer thickness range (polymer)	0.3 – 15 µm
Layer thickness range (silicon)	0.2 – 8 µm
Repeatability:	1 nm
Spot size:	~100 µm
Wavelength range:	400 – 750 nm