

StraDex f2

This sensor head is the ideal solution for precise measurements on transparent or translucent materials having thicknesses between $5\ \mu\text{m}$ and $300\ \mu\text{m}$. Owing to the small size of the measuring spot the sensor can be used for comparatively rough surfaces with a higher acceptance angle.

The working distance lies between 2 mm and 22 mm.

Applications:

Single layers

- Adhesives
- Wet and dry paints
- Coatings
- Total thickness

Multiple layers

- Total thickness
- Barrier layer thicknesses
- Intermediate layers
- Monitoring of grinding and polishing processes

Your benefits:

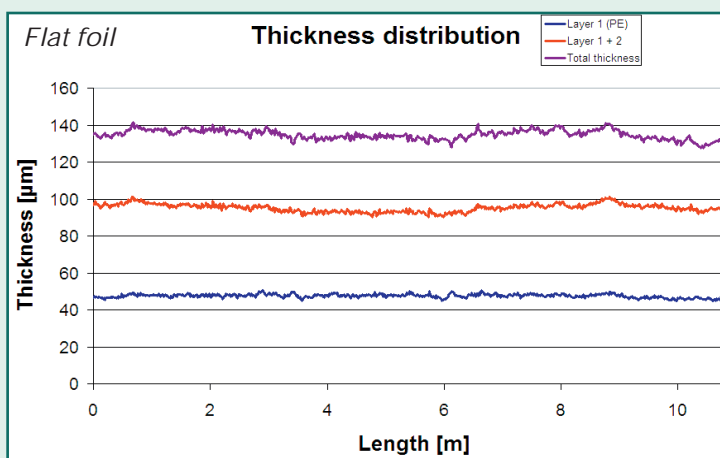
- ✓ Non-contact measurement (permitting measurement of critical materials such as wet paint or adhesives)
- ✓ Extremely accurate measurement of multiple layers
- ✓ Small measuring spot with high acceptance angle
- ✓ Large working distance
- ✓ Universally applicable

Object materials:

- Plastics
- Films
- Semiconductors (silicon, GaAs,...)
- Glass
- Adhesives
- Paints and varnishes
- Ceramics

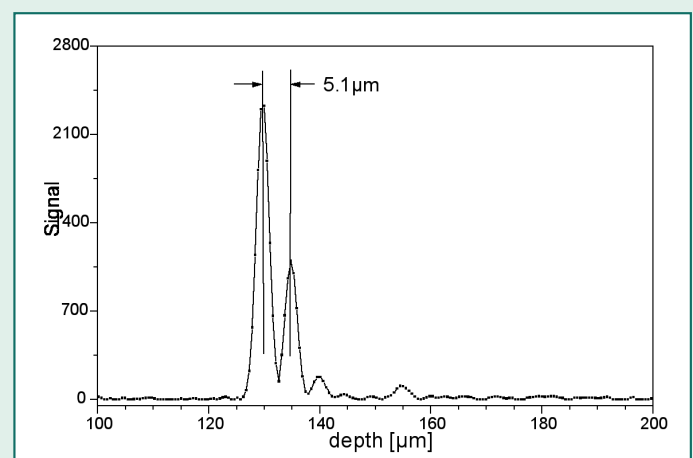


Measuring wavelengths	830 nm (f2-80)	1300 nm (f2-300)
Working distance	2 - 22 mm	
Measuring spot size	8 μm	12 μm
Layer thickness range (polymers)	5 - 200 μm	12 - 300 μm
Repeatability	< 100 nm (silicon, glass) < 300 nm (film)	
Max. acquisition rate	16 kHz / 4 kHz	
Sensor dimensions	61 x 61 x 120 mm ³	



Three-layer measurement during production

The layer thickness profile was recorded at a production speed of 140 m/min by a StraDex f2-300 sensor operating at a very high acquisition rate.



Measurement of thin layers

A thin PE layer of $5.1\ \mu\text{m}$ was measured with a **StraDex f2-80** in 830 nm technology.