

The perfect off-line quality control for film, foil, fabric, and other materials



Besides in-line quality control, a modern mass production requires a fast and accurate off-line analysis beyond the inspection capabilities of an in-line system. The off-line LabInspect system analyses all types of flat material samples and provides results which are verified with the same hardware and software as the inline inspection system for valid feedback to the production line.

With up to 8 optical channels, the LabInspect system is a cost-effective tool for production support and a must-have for quality control and R&D purposes.

YOUR BENEFITS

Cost Savings with Superior Technology

- Off-line defect evaluation under identical optical conditions as the production - recipe development allows direct transfer from Lab to Fab
- Easy verification of customer claims
- Best defect qualification & classification through MIDA (Multiple Image Defect Analysis) and SLT (Sirius Light Technology)

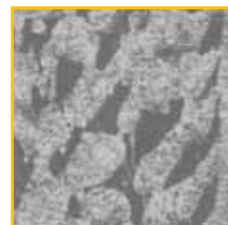
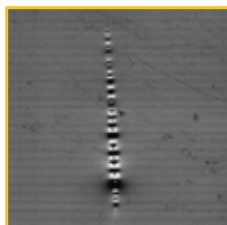
Efficient and Versatile Application

- Perfectly suited for fast research and process development
- Training tool for employees
- Up to 8 optical channels for comprehensive defect coverage

Compact solution for off-line production testing/lab use

Dr. Schenk's LabInspect was specifically developed for off-line or random testing of flat material samples. The compact inspection solution features both Dr. Schenk's MIDA (Multiple Image Defect Analysis) and SLT (Sirius Light Technology) concepts.

LabInspect is ideally suited for quick, but statistically relevant quality checks of all kinds of materials as well as for testing prototypes and pre-series materials under lab conditions.

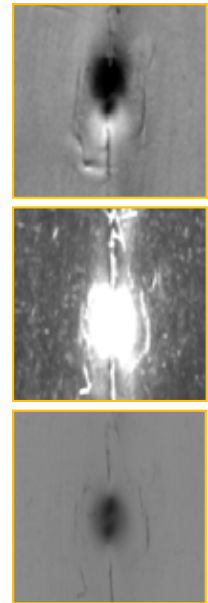
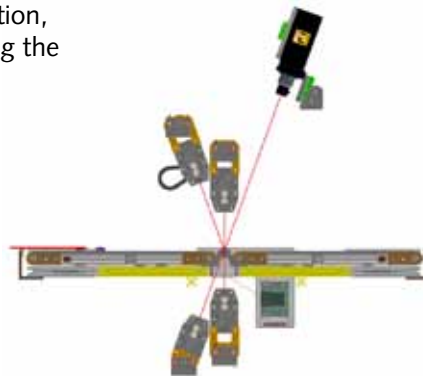


MIDA and SLT: Perfect combination for defect detection

Dr. Schenk's Multiple Image Defect Analysis lets you view defects simultaneously in different channels, from different perspectives (brightfield/darkfield, reflection/transmission), with different illuminations (diffuse/focussed, multiple wavelengths), resulting in up to 8 different channels with one camera.

For this type of advanced and versatile inspection, powerful illumination is necessary - introducing the Dr. Schenk Sirius Light Technology (SLT).

SLT uses ultra-bright, longtime stable, and uniform LEDs so no defect can go unnoticed. The LEDs are arranged in illumination units that can be multiplexed. This can be crucial in determining whether a defect is a simple surface contamination that can be washed off or if it is a critical material inclusion like a gel.

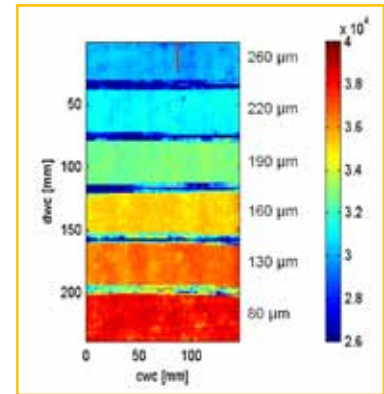


Monitoring material properties with EasyMeasure

Correct monitoring of material is a crucial component for the quality of any web material. Dr. Schenk's EasyMeasure generates a homogeneity map of layer properties (i.e. thickness, surface roughness, transmittance) for any material samples provided.

EasyMeasure on a LabInspect system lets you control coating thickness/distribution, lamination effects, fiber distribution, color variations and many other large-scale material properties that may impact the material quality.

A range of false color displays is available to highlight different aspects of the sample material homogeneity.



Material thickness in high-resolution
False Color display (200 gv~1µm)

Technical Data

Sample Size	up to 300 x 400 mm / flat	Optical Setup	
Dimensions (HxWxD)	System: 1924 x 1000 x 800 mm Length with conveyor = 1610 mm	• Channels	up to 2x brightfield, 2x darkfield; transmission and reflection (Multiplex)
Weight	approx. 420 kg with conveyor	• Illuminations	LED Illuminations / various setups
Power Supply	3/N/PE/230/400 V, 50...60 Hz + separate ground	• Camera	1x 8 K, 12 bit CMOS line-scan camera
Cooling for Illumination	Water/Air	Resolution	38 µm
Conveyor Type/Speed	Belt conveyor/ 0...10 m/min		

About Dr. Schenk

Dr. Schenk GmbH offers inspection and measurement solutions for automated quality assurance and production process control - a key success factor in the making/converting of plastics, glass, metal, PV modules, textile materials & nonwovens, and the semiconductor industry.

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