

## FIBER LENGTH ANALYSIS

### FILDAS® - Test systems for fibre distribution analyses

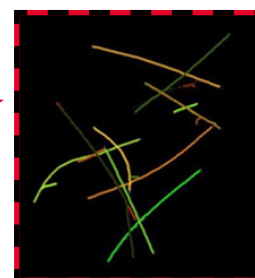
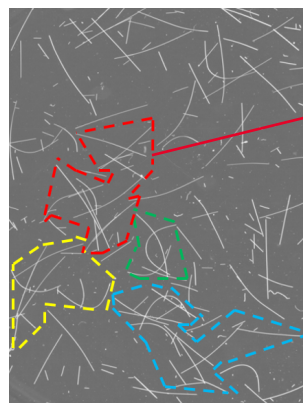
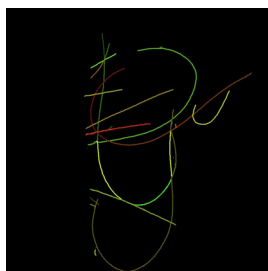
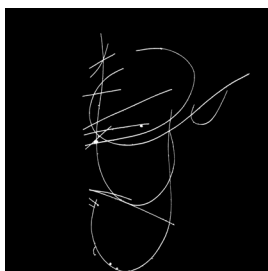
Important properties of injection moulded or extruded fibre composite plastic components are influenced by the effective length of the embedded fibres. The determination of the fibre length after the end of the process has therefore been part of the quality assurance of FRP processors as well as in the R&D sector for several years. However, previously available test methods were often very time-consuming and associated with certain limitations in terms of accuracy and practicality.

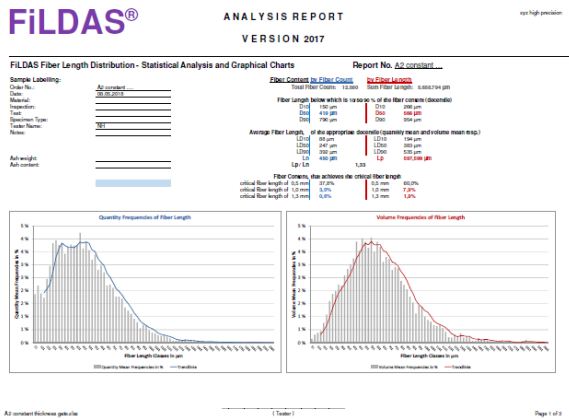
Many years of practical experience in the fields of systems engineering, digital image processing and physical-chemical laboratory analysis have gone into the Fildas instrument series. The powerful FiLDAS systems use an automated sequence of image acquisition, pattern recognition, classification and data analysis with report generation in Excel format.

The systems, which are available with dark-field and/or bright-field illumination, allow analyses of glass fibres, aramid fibres, natural fibres or carbon fibres, depending on the configuration.

#### Features / Equipment:

- Depending on the type of unit and the task, various analysis procedures with different degrees of automation are available
- Fully automated analysis, optimised for short (or straight) fibres
- Analysis of samples with ultra-long and/or crossed fibres / clusters
- Image acquisition using special scanner or DigiMic systems
- Test report, automatically generated (diagrams and data listings in Excel format)





## Technical data:

		FILDAS®
<b>Scanner / software data</b>		
Measuring range fiber length [µm], depending upon configuration		4 .... 1000 20 ... 100.000
Number of fibers / specimen		several 10.000
FOV (field of view) [mm], depending upon configuration		3 x 4 Ø 90
Scanner resolution [µm]		5.3 nom. @ 4800 dpi, ≥ 10 µm
Excel data transfer		Yes
Excel data analysis professional		Yes
Batch process (automatic / time-displaced analysis of several stored sample scans)		Yes
Auto analysis of separated / single fibers		Yes
Auto analysis of clusters of straight fibers with different orientation		Yes
Auto analysis of clusters of curved fibers with different orientation		Yes
Adaptability for other particle analysis tasks with user-configurable object filters		Yes