FibreShape Basic Automatic

Measuring natural or industrial fibers

FibreShape Basic Automatic is a quality control and characterization system for fibers and chips such as wood, jute, hemp, flax and bast. It is unique in its set of features, simple user interface, and rapid characterization process, from the sample preparation to the printed certificate. The interactive reporting system has many reporting capabilities and allows to customize the histograms and measurement reports.
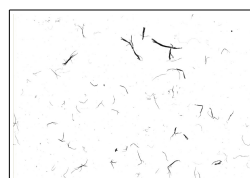
Further advantages:

- a quick measurement method for measuring the individual objects from your sample
- numerically stable measurement of fiber length and width, regardless of fiber size and shape
- easy and fast specimen preparation (dry or wet)

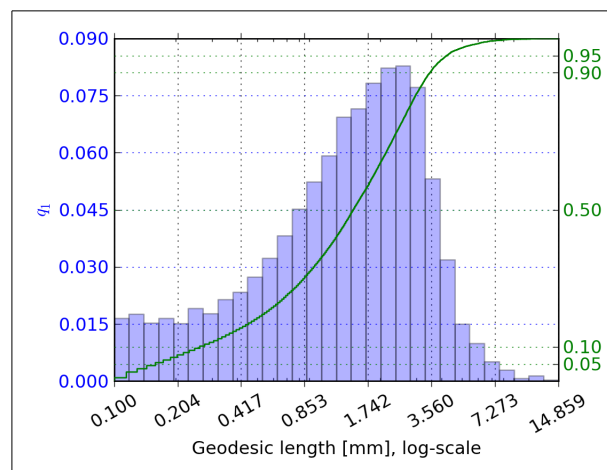## Length and width measurement with FibreShape Basic

Wood chips

Pine chips measured with FibreShape

4,2 cm

FibreShape Basic Automatic is applied to the production control of chip boards, fiberboards, WPC, etc. The size distribution (fiber length and width) of wood chips is a determining factor for the properties and the quality of the final product.
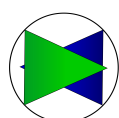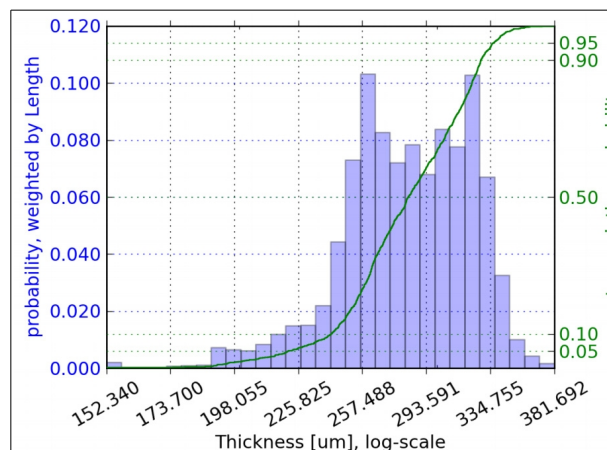

Flax blossom

Flax fiber bundles

2,4 cm

FibreShape Basic Automatic is in use for the quality control of the raw material and end products (e.g. rovings and yarn). Flax fibers are nowadays typically used in technical applications as for example in the automotive industry (natural fiber reinforced plastics).

Specifications:

Recommended size range:	A4 scanner: 30 µm in fiber width to 20 cm in fiber length
Characterization parameters:	• size: length and width • shape descriptors according to ISO 9276 - 6 aspect ratio and elongation: furthermore curvature and rectangularity • orientation (is a key factor influencing the mechanical properties of a composite material or the quality of textiles) • color (red, green, blue)
Typical applications:	Flax fibers, hemp fibers, kenaf fibers, wood chips, flock, wool, glass fibers, grass, carbon fiber rovings
Report features:	• size or shape parameters weighted by length, area or volume • diagrams: histogram and/or cumulative distribution logarithmic and linear scale • statistical quantities: mean, median, standard deviation, span
ISO Compliance:	ISO 9276 - 6
Dimensions / weight:	180 x 48 x 35 cm / 25 kg
Voltage:	220/110 V 50/60 Hz;
Specimens preparation area:	0,3 m^2
Imaging:	A4 flat bed scanner which allows to measure the objects in transmission or reflective light mode with up to 1600 dpi real optical resolution
Software:	• freely adjustable size ranges, shape and color filters • allocation of each recognized fiber to the parameter values • calibration of the scanner • creation of individual user profiles • creation of individual measure masks • interactive reporting system available in English and German