



FAVIGRAPH

The FAVIGRAPH combines **linear-density measurements** and **tensile tests** in one test equipment. Here the linear-density measuring head, which is based on the FAVIMAT+ technology, is situated adjacent to the tensile test section.

The innovative characteristic of the FAVIGRAPH is a **transfer clamp** between the two measuring systems, into which the appropriately pretensioned fiber is manually loaded. At the start of the test the transfer clamp is positioned above the linear-density measuring head. First, the linear density of the fiber is determined. Thereafter, the transfer clamp turns to the tensile test section and places the fiber into the measuring- and draw-off clamp. During the tensile test it is already possible to insert the next fiber into the linear-density measuring head.

As a consequence, continuous parallel operation of both systems is ensured. With corresponding short fiber breakage times, cycle times of 15 sec are easily achieved resulting in a test output of 240 fibers per hour.

Moreover, a special advantage of the FAVIGRAPH is that the operator handles the fiber only once when introducing it into the transfer clamp at the linear-density measuring head. Compared to conventional systems, where two independent testing instruments necessitate separate introduction of each fiber, the FAVIGRAPH technology signifies a substantial reduction in both work input and possible fiber damage Tensile tests in water or other liquid media as well as on fiber bundles are also possible (option).

Special clamps with jaws of only 2 mm height allow tensile tests on samples as short as 4 mm.



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Fiber transfer from the vibroscopic measuring head to the tensile test section

Testing methods

- Measurement of linear density
- Static tensile test, cyclic load testing, creep- and relaxation trials
- Static tensile tests under liquid media
- Fiber bundle testing on natural fibers

System components

Linear-density section

- Vibroscopic linear-density test system
- Pre-tensioning by means of pre-tension weights
- Transfer mechanism capable of transferring the fiber from the linear-density test section to the tensile test section

Tensile test section

- One pair of single-fiber clamps, also suited for other narrow test specimen
- One pair of fiber bundle clamps (optional)
- Continuously adjustable gauge length 0 - 100 mm
- Draw-off clamp speed 0.1 100 mm/min, return speed 300 mm/min max. travel of draw-off clamp 100 mm
- Available load cell ranges: 20 cN, 100 cN, 10 N, 100 N (other ranges on request)
- Elongation measuring device, resolution 0.1 µm

TESTCOTROL

- PC system for controlling the test processes and for the evaluation of the measured data, connected via USB interface;
- Input of all parameters for testing and measured data evaluation on the PC, saving of selected parameter sets of test conditions under code words;
- PC for easy integration within any network type

Further technical data

Mains supply: 220V, 50 (60) Hz, approx. 1 A Compressed-air supply: 6 bar, 25 l/min Lacquer finish: RAL 9006/5002 Dimensions, weight:

Height 600 mm, width 450, depth 500 mm, approx. 65 kg

Technical contents can be subject to changes by Textechno.

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