AT 500

LENZING INSTRUMENTS

ABRASION TESTER

During filament yarn production, unintended abrasion may cause production downtime due to various parameters such as yarn twist, yarn titer (dtex, den) and wax levels.
An exact quantification of the abrasive yarn characteristics gives information both of the unintended abrasion as well as of the positive, abrasion-reducing properties of spin finish oil.

This task is performed by Lenzing Instruments abrasion tester **AT 500**, which delivers qualitative and accurate information about the abrasive properties along the yarn within just a few minutes. The unique and efficient measurement method requires only a small amount of yarn for a thorough analysis.
Abrasion is measured by letting the running yarn pass through a metal plate. The resulting abrasion of the plate gives feedback about the abrasion characteristics of the yarn.

The abrasion tester **AT 500** is suitable for many purposes:

- analyzing the influence of the concentration and composition of finishes, dyes delustring, agents, polymer additives.
- isolating the effects of individual substances in spin finish oil
- examining the effects of the sectional form of fibers and their titers
- production control
- investigating the causes of abrasive properties of fibers and yarns
- preventive identification of yarns, which cause abrasion, prior to further processing
- quick, clear analysis of the potential for abrasion
- determining the anticipated needle service lives

Developed and manufactured by Honigmann, Wuppertal / Germany

FILAMENT TESTING

The Testing Company

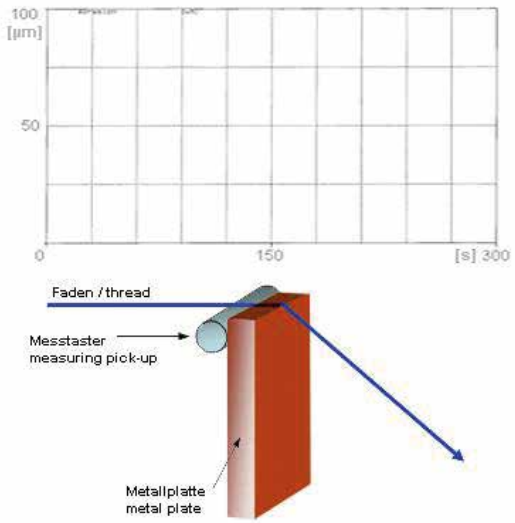
AT 500

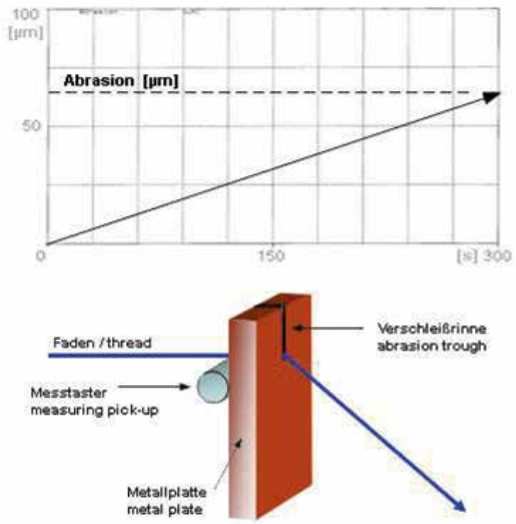
ABRASION TESTER

Scope
At-line testing instrument for automatic and accurate determination of the abrasion characteristics of filament yarn according to DIN/ISO 900x offers the basis for easily adaptable extensions.

Method
In combination with a yarn take-off unit, the tested yarn is run through a metal plate of outstanding hardness during a defined time period.
A measuring sensor registers the abrasion of the plate, out of which the abrasion properties of the yarn are defined.

Results
The Windows® based software program offers online measurement data aquisition and evaluation as well as automatic documentation and output of the results. During the measurement, not only the final results are stored but all the peripheral parameters as well, such as the F1 tensile force, abrasion, take-off speed, measurement period, date, operator identification, temperature, relative humidity etc.





The measured data are captured at a sampling rate of 200 measurements per second, at resolution of 16 bits.

Shown in parallel, during the measurement, are the set-point values and
- the actual value for tensile force F1
- the abrasion value calculated online
- information on the momentary software operation status

All the measured values are stored as the original values, without data compression, together with the associated measurement parameters, the comments and the statistical values. This makes it possible to call these data once again, whenever it may be required, and to carry out further assessments – in accordance with the state of the art valid at any given date. In addition, this makes for simple reconstruction of the measurements at any time.

Technical data and pictures are subject to change!

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LENZING INSTRUMENTS

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