ALFA 300

LENZING INSTRUMENTS

AUTOMATIC FINISH ANALYZER

Have you ever been upset about the time and the expenditures you have to pay for achieving reliable feedback on the spin finish content of your filaments (FOY%, OPU%)? Did you ever wish to free yourself from waste disposal expenses for the necessary dissolvent?

The **ALFA 300** determines the content of finish on yarn and oil pick up by a highly automated procedure. Apart from the efficiency of handling automation, the measurement takes place in approximately 3 minutes per sample. That offers your operator time to take care of other jobs, it reduces the possibility of errors and makes the results more reliable. In case of necessity you can easily increase the frequency of measurements for a more detailed production control or for specific problem analysis without requiring additional equipment or staff.

ALFA 300 is an automated spin finish analyzer which permits a flexible and reliable production control. Its automation reduces decisively sample preparation workload and increases the reliability of the results. 28 samples are tested without direct operator control and the preparation time is much less than it used to be with other systems. By using water as a dissolvent it saves time and costs for waste disposal and will meet even in future possible obligatory ecological demands.

ALFA 300 uses hot deionized water as finish dissolvent. Its application as dissolvent has been successfully proven with the **ALFA 300** in long years of implementation in production control with most different spin finish types. Thus no expensive disposal of chemical dissolvents is required anymore.

FILAMENT TESTING

The Testing Company

qualityaustria
SYSTEM CERTIFIED
ISO 9001:2008 No.00894/0

ALFA 300

AUTOMATIC FINISH ANALYZER

Scope:
Determination of spin finish content of filament yarns and staple fibers. Suitable for all organic oil, fat and carbon based finishing agents.

Method:
A known amount of fibers or filament yarn is put into a measuring vessel. Hot deionized water is added as dissolvent and through constant stirring the finish is extracted from the fibers.

The resulting emulsion is now pumped to the Total Carbon Analyzer where its carbon content is determined. Based on the amount of organic carbon the % OPU (Oil Pick Up) or % FOY (Finish On Yarn) is calculated and printed.

The results can be stored in a data base for further evaluations. Data transfer (ASCII-format) to a host computer is possible.

The autochanger subsequently moves one sample after the other to the Extraction Unit and TC-Analyzer. Hence up to 28 samples can be tested automatically. Testing time per sample is as short as 3 minutes approximately.

Results:
- FOY %
- OPU %
- Information if the results are within predefined limits

Testing time:
3 min per sample

Measuring range:
0-200 ppm TC (total carbon)
corresponding to:
approx. 0% to 5% FOY, OPU

Accuracy:
± 0,02% FOY, OPU depending on spin finish

Repeatability:
better than ± 1,5%
(standard calibration solution)

Sample size:
Typically approx. 2 g fibers or 100 m (dtex), 90 m (den) of filament yarn depending on titer and finish content

Gas supply:
Synthetic Air, HC free

O_2	=	20 ± 1%
N_2	=	80 ± 1%
H_2O	<	5ppm
C_nH_m	<	0,1ppm

Gas Consumption:
approx. 200 ccm at 3,5 bar during measurement

Dissolvent:
Deionized water at a temperature of >60° C
(It is not to be understood to extract 100% of finish, but to extract finish in a reproducible way by using a certain fixed and reproducible procedure)

Dimensions:

Height:	680 mm
Length:	1140 mm
Width:	650 mm
Weight:	72 kg

Power supply:
110 to 240 V ~ 50/60 Hz
1 kVA

ALFA300 consists of:
- Auto sampler
- Extraction unit
- TC analyzer
- Evaluation unit

Evaluation and Control unit:
Personal Computer, Color Monitor, Keyboard, Printer, Windows XP

Interface:
USB

Technical data and pictures are subject to change!

Lenzing Instruments GmbH & Co. KG
A-4851 Gampern, Austria
E-mail: team@lenzing-instruments.com
www.lenzing-instruments.com

LENZING INSTRUMENTS

THE TEXTECHNO GROUP

Your reliable partners for quality improvement

Textechno Herbert Stein GmbH & Co. KG
D-41066 Mönchengladbach, Germany
E-mail: info@textechno.com
www.textechno.com

Textechno textile testing technology