

**Evaluation Program for PC
L 5110 LABODATA III**



SCOPE

The L 5110 Evaluation Program for PC LABODATA III is an user friendly program for documentation, statistical analysis, storage, and long-term evaluation of the test

results from various TEXTTEST instruments by means of an IBM compatible PC.

FUNCTION

When the program is loaded into an IBM-compatible PC with the graphical user interface Windows, the PC becomes a complete data processing system for the testing laboratory. Up to five instruments can be connected simultaneously, "on-line", to the PC for direct data transfer from the instrument to the PC. In addition, test results from any other instrument can manually be entered into the PC through the keyboard.

The following instruments are suitable for direct connection to the PC:

- YT 2100 Automatic Twist Tester II
- YT 2600 Universal Tensile Tester
- FX 3000 Hydrostatic Head Tester I, II and HYDROTESTER III
- FX 3250 Automatic Pick Counter PICK-COUNTER
- FX 3300 Air Permeability Tester I, II, and LABOTESTER III
- FX 3310 Air Permeability Tester with Pneumatic Sample Clamp
- FX 3350 Dynamic Air Permeability Tester AIRBAG-TESTER
- FX 3700 Digital Tearing Tester
- FX 3750 Digital Tearing Tester ELMENDORF-TESTER
- L 5015 Electronic Balance
- Lenzing Liquid Strike-Through Time Tester LISTER.

If more than one instrument is to be connected to the PC, the L 5120 Automatic Switch Box is required as an accessory. However, only *one* instrument of a kind can be connected to the PC at the same time.

Test results from different instruments and for different test specimens can be processed in any sequence.

The individual test results are automatically compared with the control range of the test specimen. If a test result

lies outside of the control range, the operator is alerted by a visual and acoustical alarm.

Each individual test result can be supplemented by a brief, explaining comment, which later appears on the test report. In addition, questionable test result can be retroactively deleted. This way they cannot distort the statistical analysis of the test series.

The computer constantly displays numerically and graphically the statistical analysis of the test series (average, minimum and maximum test result, coefficient of variation and 95 % confidence interval), thus enabling the operator to monitor the reliability of the test results at any time. When the confidence interval drops below the pre-selected nominal confidence interval or when the pre-selected number of measurements per test series has been made, the operator is automatically informed that the objective of the test has been achieved. The test series may than either be terminated or continued. Premature termination is possible at any time.

After termination of a test series - or at a later date - a comprehensive, full-page, hard copy test report can be printed, including the statistical analysis of the test results (see attached picture). The test results from various instruments may be shown *together* on the same test report. This provides for reliable, complete and uniformly documented test results and relieves the operator of all unnecessary and error-prone read-out, recording and calculation tasks.

The recorded test results are saved on the hard disk of the PC for long-term evaluation.

A long-term statistic, showing the test results in relation to the nominal test result range, can be displayed and printed for any selected date and time range.

The Evaluation Program L 5110 LABODATA III handles five languages: English, German, French, Italian and Spanish.

FX 3300/FX 3310 AIR PERMEABILITY TESTER

By means of the Evaluation Program LABODATA III the test results from the FX 3300 and FX 3310 Air Permeability Testers can be converted from "air permeability" into the "pressure drop at a given air

velocity". This value, which is important for gas filter materials, is shown both, numerically and as a curve "pressure drop versus air velocity" in double logarithmic scale.

FX 3350 AIRBAG-TESTER

The Evaluation Program LABODATA III displays and prints the following curves, computed from the test results received from the Dynamic Air Permeability Tester FX 3350 AIRBAG-TESTER. These curves are particularly useful for research and development work on airbag fabrics:

- test pressure versus time
- bulging height of the test specimen versus test pressure
- biaxiale stress versus biaxiale strain
- dynamic air permeability versus test pressure, both in linear and double logarithmic scale
- computed air permeability versus test pressure, both in linear and double logarithmic scale.

The biaxial strain/stress curve provides for vital information about the mechanical performance of the tested fabric, which is not easily available otherwise.

From the dynamic air permeability curve, the Evaluation Program LABODATA III extracts the following properties of the airbag fabric:

- average dynamic air permeability in a freely selectable test pressure range
- exponent of the curve air permeability versus test pressure in a freely selectable test pressure range.

By means of the exponent of the air permeability curve, the air permeability of the airbag fabric can be easily computed for *any* test pressure.

L 5015 ELECTRONIC BALANCE

Based on the specimen size entered, the Evaluation Program LABODATA III converts the weight of the test specimen, received from the L 5015 Electronic Balance, into the yarn, fabric, or paper properties, listed in the

following table. Thus, in conjunction with a PC and the Evaluation Program LABODATA III, the L 5015 Electronic Balance becomes an electronic yarn and area weight balance.

Type of test specimen	Specimen property	Specimen size
Yarn	Yarn fineness in dtex, tex or den	1 through 9,999 m or 1 through 9,999 yard
Yarn	Yarn count Nm or Ne _c	1 through 9,999 m or 1 through 9,999 yard
Fabric	Area weight in g/m ² or oz/yd ²	1 through 9,999 cm ²
Paper	Area weight in g/m ² or oz/yd ²	DIN A0 through DIN A9

REQUIREMENTS FOR THE PERSONAL COMPUTER

	Minimum	Recommended
• Computer:	Desktop or Laptop, IBM-compatible, with Pentium processor	Desktop or Laptop, IBM-compatible, with Pentium processor III
• Main memory:	64 MB RAM	128 MB RAM
• Hard disk:	100 MB available	1 GB available
• Drive:	CD ROM	CD ROM
• Serial data port:	1 x RS 232	1 x RS 232
• Operating system:	Windows 95	Windows 98 or higher
• Monitor:	1,024 x 768 pixels, 256 colors	LCD, 1,024 x 768 pixels, 256 colors or more
• Printer:	Laser or ink jet printer	Laser or ink jet color printer.

TECHNICAL SPECIFICATIONS

- "On-line"- data sources: maximum 5 LABODATA instruments
- Manual data entry: through PC keyboard
- Entry data range: + 0.0001 through + 999,999
- Automatic rounding: to three significant digits
- Number of measurements per series: 1 through 999
- Content of test report:
 - Header:** 4-line test specimen ID, date, time, operator, testing instrument, and test parameters
 - Individual test results**
 - Trailer:** Average, minimum and maximum test result, coefficient of variation (CV), 95 % confidence interval (CI), and nominal value range
- Width of test report: 17.5 cm (7")
- Languages: English, German, French, Italian and Spanish
- Disk space requirement (excluding, data): 10 MB.

The program is supplied complete with a special 3 m (9 ft) long interface cable.

ACCESSORY

For connection of more than one instrument to the PC, the following accessory is required:

L 5120 Automatic Switch Box

Automatic switch box for connection of up to five instruments to a single PC, loaded with the Evaluation Program L 5110 LABODATA III.

Complete with five interface cables, each 2 m (6 ft) long.