



The dyeability is one of the fundamental characteristics of staple fiber, filament yarn and fabric. Insufficient dyeing properties indicate deviations in the production process. Therefore, a reproducible testing procedure for examining the dyeability properties is of vital importance.

With the **Dyeing Machine FM 02**, the dyeability characteristics of viscose staple fiber are determined in an automated and reproducible way.

In combination with Lenzing Instruments colorimeter **Vibrochrom 400**, the test is completed with colour comparison tests for determination of deviations from reference samples.

FM 02 offers efficient quality control with the possibility of testing of up to 8 samples simultaneously. Further, various time- and temperature settings may be selected for flexible testing.

Scope:

Robust industrial laboratory dyeing machine for the pressure-free dyeing of viscose fiber samples to check and classify the dyeability in combination with the colorimeter **Vibrochrom 400**. The dyeing program provides two dyeing cycles at two different temperatures (0 - 99 °C). The time for each cycle can be set between 0 - 99 minutes. At the end of the dyeing process an acoustic alarm is given.

Method:

During the dyeing process, 8 small cages filled with samples, are continuously perfused with colour through the rotating movement of the cylinder, in which they are positioned. The temperature-time-program of the dyeing process, is controlled by a programmable control system. The end of the dyeing process is signaled by an acoustic signal. After washing and skidding the samples, they have to be dried at 105 °C in a drying furnace.

Results:

The dyeing results are evaluated by putting the samples in a fiber cuvette and measuring them in the **Vibrochrom 400**. In order to receive a dyeability index, a reference-sample is measured, which was dyed together with the other samples. The evaluation is carried out according to the CIELAB formula according to DIN 6174.

Dyeing cylinder:

Stainless steel
Volume: 5 l

Dyeing rotor:

With 8 pcs. removable cages

Sample cage:

For 4 g of sample material

Discharge of color residues:

By means of a valve into the gully or into a collect vessel

Time setting:

Individual via user terminal;
2 cycles 0 - 99 minutes

Temperature setting:

Individual via user terminal;
2 cycles 0 - 99 °C

AC motor:

With gear box and mechanical clutch electrical control unit

Control unit:

Free programmable control unit

Power supply:

230/115 VAC ± 10 %
50/60 Hz

Heating:

220 V, 2000 W, 6.5 A

Dimensions:

Length: 800 mm
Width: 410 mm
Height: 600 mm
Weight: 50 kg

Technical data and pictures are subject to change.

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quality improvement

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