INTER WOOLLABS

International Association of Wool Textile Laboratories
Association Internationale de Laboratoires Textiles Lainiers
Internationale Gesellschaft der Wolltextillaboratorien
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RECOMMENDATIONS OF THE MANAGEMENT COMMITTEE CONCERNING THE EQUIPMENT OF LABORATORIES CARRYING OUT FINENESS MEASUREMENTS ON WOOL TOPS BY MEANS OF THE **AIR-FLOW APPARATUS**

I. MINIMUM CRITERIA

In order to carry out fineness measurements on wool tops by means of the AIR-FLOW apparatus and consequently satisfy the minimum required criteria, a laboratory **must compulsorily:**

A. **Be equipped with:**

1) an AIR-FLOW apparatus;

2) an Air-Conditioning system that is capable of maintaining the Standard Testing Atmosphere as defined below:

- the temperature which must be maintained at 20ºC + or - 2ºC,
- the relative humidity which must be maintained 65% + or – 3%RH;

3) a thermometer
4) a hygrometer

} may be incorporated or associated in a recording instrument;

5) a wet and dry bulb aspiration psychrometer (of the Assmann type)or any other apparatus for checking the relative humidity and linked to the reference standards;

6) a balance capable of displaying 1mgr. And with a maximum capacity not exceeding 200mg;

7) a barometer

B. **Strictly apply**

The most up-to-date IWTO Test Specification (IWTO-6)
"METHOD OF TEST FOR THE DETERMINATION OF THE MEAN DIAMETER OF WOOL FIBRES IN COMBED SLIVER USING THE AIR-FLOW APPARATUS".

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C. **Carry out:**

1) a daily check of the calibration of the AIR-FLOW apparatus, using secondary standard reference material prepared by the individual laboratory. (Where this detects a potential problem, confirmation can then be obtained by using IH Standards. If a problem is confirmed, full calibration must be undertaken using a freshly prepared set of IH Standard (i.e. unused previously). The IH Standards are the final arbiter for the existence or otherwise of a problem);

2) a complete cleaning and re-calibration of the AIR-FLOW apparatus, using fresh (unused) IH Standards tops, at least each 6 months, but more frequently where regular continuous daily use is normal;

3) a weekly check of the hygrometer by means of wet and dry bulb psychrometer or any other electronic equipment, provided it has itself been checked in relation to the reference standard;

4) a routine daily check of the balance, using “in-house” masses, and in addition an accuracy check, using certified masses, at least each 6 months, but more frequently where regular continuous daily use is normal;

5) to record continuously the temperature and the relative humidity of the room(s) in which the tests are carried out.

II. RECOMMENDATIONS

Apart from the above mentioned criteria the Management Committee **urges** Member-Laboratories:

1) to investigate the time required for test samples to attain a stable regain when conditioning is carried out (from the dry side) on test samples using identical laboratory procedures to those which are used for normal routine testing of samples. (Depending upon these procedures and the air movement around test specimens, it can take from 4 hours to in excess of 24 hours to ensure that adequate conditioning has taken place);

2) to clean the AIR-FLOW apparatus on a regular basis relative to the number of tests conducted and type of wool tested (e.g. Non-combed sliver will require a higher cleaning frequency than combed top because of the potential to build up short fibre and dust in the apparatus). The cleanliness of the apparatus can also be a cause of failure detected by the compulsory daily check (see Clause C.1). After each cleaning, the AIR-FLOW apparatus must be checked, as set out in Clause C.1) to determine whether recalibration is necessary or not;

3) to keep records of the temperature and humidity;

4) to ensure that their principal Laboratory Technician/Manager is on the appropriate mailing list for receipt of any new and amended versions of IWTO-6;

5) to ensure that any such changes to IWTO-6 are implemented immediately, by clearly allocating the responsibility for full compliance and operator training to the Manager of their laboratory.