

CIRCOT CALIBRATION COTTON



Standard Reference Material for Calibration of HVI System



Zonal Technology Management & Business Planning and Development Unit (ZTM-BPD Unit)

Central Institute for Research on Cotton Technology (CIRCOT), Indian Council of Agricultural Research (ICAR)

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Nurturing Technologies for Realising Business Endeavours!

SUCCESS STORY OF CIRCOT CALIBRATION COTTON

CIRCOT, since its inception in 1924, is one of the premier constituent institutes of the Indian Council of Agricultural Research (ICAR) and conducting R&D in post harvest processing and technology development on cotton. Being an accredited institute, it is massively providing technological support in testing services to the trade and industry.

Until 1997, all textile testing laboratories in India including those of textile mills and R&D establishments were using imported USDA calibration cotton standards for calibrating fibre testing instruments such as Fibrograph, Micronaire, Stelometer and HVI system. The import of calibration cotton is time consuming, expensive and involves valuable foreign exchange. During late nineties, as USDA discontinued its supply of ICC-mode Calibration Cotton for HVI, CIRCOT initiated programme of production and supply of Standard Reference Material (SRM), a Calibration Cotton, under the ICAR Revolving Fund.

The novelty of the CIRCOT HVI standard is that it is useful for both ICC and HVI mode operation. CIRCOT Calibration Cotton programme has been accepted by the National Accreditation Board for Testing and Calibration (NABL) as a standard reference material.

The technology for preparation of Calibration Cotton is one of the hallmarks of CIRCOT R&D. This indigenous standard reference material is used for calibrating modern cotton fibre testing instruments for ensuring comparability of results with international standards. It has been accepted countrywide with about 300 users and is preferred over similar standards imported from various developed nations.

Several User Meets were organized by CIRCOT in order to build a strong customer base. Our clientele include leading Textile mills, Ginning factories, Export oriented units, Research Institutions, Private and Public sector testing laboratories. The acceptance of Calibration Cotton at an International Level encouraged us to strengthen this service to the industry.

Quality Characteristics of CIRCOT CALIBRATION COTTON

Table 1. ICC Mode Calibration Cotton

| Code | 2.5% SL (mm) | UR (%) | Micronaire Value | Tenacity (g/tex) | Elongation (%) |
|------------|-----------------|---|---------------------|---------------------|----------------|
| SP-S | 22.9 | 50.0 | 4.6 | 17.8 | 5.0 |
| H D-5 | 31.3 | 42.0 | 2.7 | 25.8 | 5.5 |
| SP-L | 35.5 | 43.0 | 3.5 | 26.6 | 6.4 |
| Hlm-2 | - | - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 | 2.7 | - | / <u>-</u> |
| Hhm-3 | - | - | 5.3 | | / - |
| Tolerances | ± 0.5 | ± 1.0 | ±0.10 | ±1.5 | 9/ - |

Table 2. HVI Mode Calibration Cotton

| Code | UHML (mm) | UI(%) | Mirconaire Value | Tenacity (g/tex) | Elongation (%) |
|------------|--------------|-------|---------------------|---------------------|-------------------|
| SP-S | 22.6 | 77.0 | 4.6 | 22.9 | 5.0 |
| H D-5 | 31.3 | 80.0 | 2.7 | 32.9 | 5.8 |
| SP-L | 34.9 | 84.0 | 3.5 | 35.5 | 6.4 |
| Hlm-2 | - | | 2.7 | - | - 5 |
| Hhm-3 | | | 5.3 | - | |
| Tolerances | ± 0.5 | ± 1.0 | ±0.10 | ±1.5 | - |

CIRCOT is offering indigenously prepared calibration cotton standards at a price of Rs. 750/- for 200 g. The cost of Micronaire only cotton is Rs. 300/-. Rebate of Rs 125/- per sample is offered for the purchase of four or more cottons. Further discount of 10% will be given for bulk orders placed for Rs.10,000/- and above. The amount may be paid in advance by cash or cheque or by demand draft in favour of "Director, Central Institute for Research on Cotton Technology" payable at Mumbai.



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