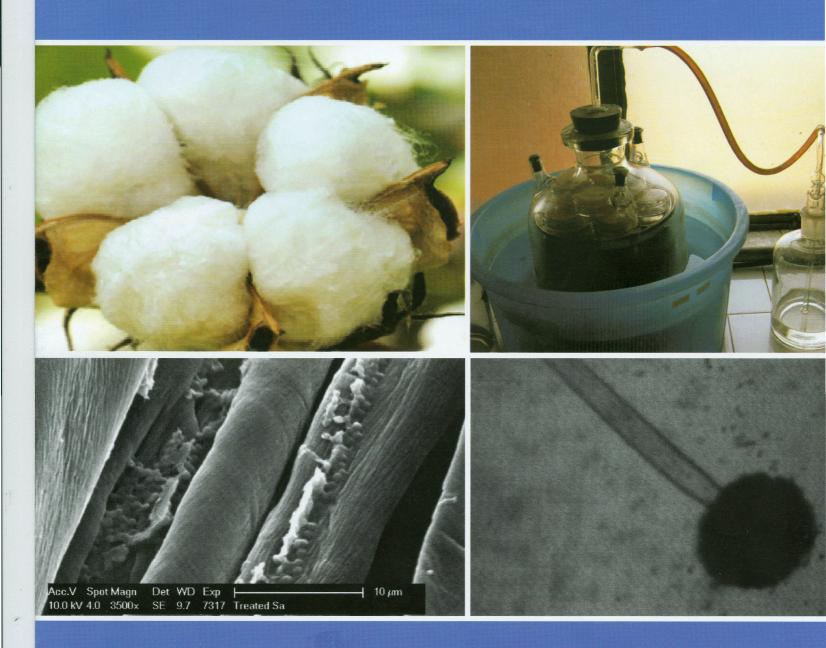


Microbiological Testing Services for Textiles



CENTRAL INSTITUTE FOR RESEARCH ON COTTON TECHNOLOGY



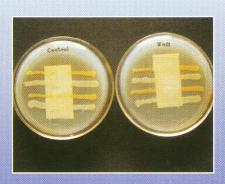
(Indian Council of Agricultural Research)
Adenwala Road, Matunga
Mumbai 400019



INTRODUCTION

The Central Institute for Research on Cotton Technology (CIRCOT), located at Matunga in Mumbai was established in the year 1924 CIRCOT, a unit under the Division of Agricultural Engineering of the Indian Council of Agricultural Research (Department of Agricultural Research and Education, Ministry of Agriculture, Government of India) is engaged in research and development activities in cotton technology. The Institute is an acknowledged leader for well over 85 years in the field of testing, standardization and development of test methods for different types of textile materials. Under the direct supervision of Scientists, tests are carried out by well-qualified technical officers in the field of Microbiology. All the testing instruments are well calibrated and maintained properly.

The test methods followed are according to the International / National standard or CIRCOT's own method. The complete information on test fee is available in the website www.circot.res.in







Tests for Assessment of Fabrics

| S.No. | Title of Test | Std. | Method No. | Scope |
|-------|--|-------|------------|---|
| 1 | Antibacterial Activity Assessment of Textile Materials: Parallel Streak Method | AATCC | 147-2004 | Qualitative determination of antibacterial activity of textile material (Cotton and other fabrics) |
| 2 | Antibacterial Finishes on Textile Materials: Assessment of | AATCC | 100-2004 | Quantitative determination of degree of antibacterial activity of textile material |
| 3 | Antifungal Activity, Assessment of Textile Materials: Mildew and Rot resistance of Textile Materials | AATCC | 30-2004 | Evaluation of susceptibility of textile materials to mildew and rot; and to evaluate the efficacy of fungicides in textile materials. |
| 4 | Antimicrobial Activity Assessment of Carpets | AATCC | 174-1998 | Determination of antimicrobial activity (both antibacterial and antifungal) of carpet as qualitative and quantitative assessment. |
| 5 | Methods for detection and estimation of damage in cotton fabrics due to microorganisms | IS | 1316-1958 | Method for the detection and estimation of damage in cotton fabrics due to microorganisms. |
| 6 | Methods for determining the desizing efficiency and the relative efficiency of amylolytic enzymes | IS | 647 -1965 | Evaluating the desizing efficiency and the relative efficiency of amylolytic enzymes. |
| 7 | Methods for testing cotton fabrics for resistance to attack by micro-organisms | IS | 1389-1984 | Evaluation of resistance of cotton fabrics to micro-organisms by accelerated mildew infection methods and soil burial method |

Tests for Assessment of Fibre, Yarn and Cordage

| S.No. | Title of Test | Std. | Method No. | Scope |
|-------|---|------|------------|---|
| 1 | Methods for detection and estimation of damage in cotton fibres due to microorganisms | IS | 2964-1964 | Method for detection and estimation of damage in cotton fibres due to microorganisms. |
| 2 | Methods for detection and estimation of damage in cotton yarn and cordage due to microorganisms | IS | 1815-1985 | As cotton yarn and cordages are liable to be attacked and damaged by microorganisms such as bacteria and fungi while transit, in storage or in use. This method is for detection and estimation of damage, thereof. |
| 3, | Methods of testing cotton cordages for resistance to attack by microorganisms | IS | 1386-1974 | This method for evaluation of cotton for resistance to attack by microorganisms is based on accelerated mildew infection and soil burial principles. |

Tests for Analysis of Environmental Samples

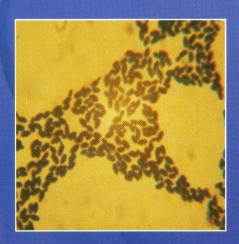
| S.No. | Title of Test | Std. | Method No. | Scope |
|-------|--|--------|--|--|
| 1 | Estimation of BOD and COD | IS | 3025 : Part 38-1989, 44-1993 & 58-2006 | Rapid and Precise Method for Determination of organic matter (both biodegradable and non-biodegradable) levels in the samples such as Textile effluent, Distillery effluents, leather industry |
| 2 | Microbial population in soil | CIRCOT | Viable count method | Evaluation of microbial biomass in soil which is an indicative of fertility status |
| 3 | Enumeration of anaerobic microorganisms involved in methane production | CIRCOT | CIRCOT's Patent No. 203406 of 2002, Mumbai. | Enumeration of cellulolytic, sulphate reducing and methanogenic microorganisms |

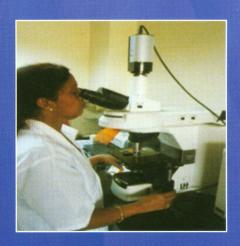
Tests for Assessment of Non-Textiles

| S.No. | Title of Test | Std. | Method No. | Scope |
|-------|--|------|------------|---|
| 1 | Standard Test Method for Determining the Activity of Incorporated Antimicrobial Agent(s) In Polymeric or Hydrophobic Materials | ASTM | E 2180-07 | This method confirms the presence of antimicrobial activity in plastics on hydrophobic surfaces. |
| 2 | Standard Test Method for Determining the Antimicrobial Activity of Immobilized Antimicrobial Agents Under Dynamic Contact Conditions | ASTM | E 2149-10 | For immobilized antimicrobial agents under active conditions within specific hour (1 h); for paper, fabric and granular materials |
| 3 | Standard test methods for mildew (Fungus) resistance of paper and paperboard | ASTM | D 2020-92 | Qualitative determination of mildew resistance of paper and paper board |
| 4 | Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials in Soil | ASTM | D 5988-12 | Estimation of degree of biodegradability and time period over which plastic will remain in aerobic soil environment. |

In addition to the above mentioned tests, other tests may be customized as per clients' requirements within the scope of the expertise and facilities available at CIRCOT.









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