



DITF

DEUTSCHE INSTITUTE FÜR
TEXTIL+FASERFORSCHUNG

TESTING OF FIBERS, YARNS, SURFACES AND TEXTILES

COMPETENCE IN
TESTING TECHNOLOGY
AND ANALYTICS



COMPETENCE IN TESTING TECHNOLOGY AND ANALYTICS

The essential competence and business unit area of the DITF, besides research, is textile testing as well as the analytics of fiber-based materials. The DITF has established several testing laboratories since its founding and offers a comprehensive catalog of services for testing fibers, yarns, surfaces, and textiles.

Competent and experienced

The well-trained specialists in the DITF test laboratories come from a wide variety of testing and quality assurance areas. Scientists, engineers, specialized laboratory assistants and technical assistants with many years of experience in the testing of textile pre-products and textiles have specialist knowledge as well as extensive background knowledge from the manufacturing processes. This is necessary for the precise implementation and evaluation of test results and for the assessment of damage cases.

Well-resourced and accredited

The DITF testing laboratories offer comprehensive technologies for the research and testing of fiber-based materials and textiles. Modern technologies, versatile laboratory equipment, and optimal test procedures enable standardized, yet cost-effective solutions. Another strength of the DITF Laboratories is their ability to customize tests and develop customer specific tests.

The most modern testing, as well as test technologies and procedures, are available for the examination of textiles, chemicals, and organic compounds. The Service Center Testing Technologies and the Biology Testing Laboratory of the DITF as well as the biological and chemical Testing Laboratories of the ITV Denkendorf Produktservice GmbH are accredited according to: DIN EN ISO/IEC 17025 by the DAkkS Deutsche Akkreditierungsstelle GmbH.

SERVICES



The laboratories work on a wide variety of scientific and analytical questions related to fibers, filaments, precursors, textile surfaces and end products This can be used for routine quality monitoring or to support research and development or in the event of a claim.

The DITF-Laboratories offer an extremely wide range of products with the following main tasks:

- > Standard textile tests and application-oriented tests
- > Technical testing support for all textile production stages
- > Preparation of specifications, expert opinions and damage analysis for textile products
- > Development of new test methods and test equipment technology
- > Setup of customer-specific tests

DITF TESTING LABORATORIES

The testing services are orientated towards research and industrial requirements and comprise six testing laboratories. The services are used to provide technical testing support to small and medium-sized companies as well as to large companies, but are also used internally to support the DITF's own R&D and production departments.

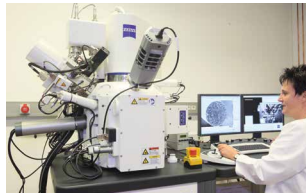
Service Center Testing Technologies

The Service Center Testing Technologies deals with a wide range of issues along the textile value chain related to filaments, yarns and textile fabrics – be it for routine quality monitoring, for supporting research and development or for cases of damage. The focus of the work is on the areas of physical testing of yarns, fabrics, technical textiles; fiber composite testing; testing according to EN13567:2002+A1:2007 fencing tests; development of new test methods and participation in standardization committees (DIN).



Polymers, textile chemistry and chemical fiber testing laboratory

Analytical methods for the characterization of polymers, fibers and various intermediates. These include thermoanalytical methods (DSC, TGA, TMA, STA), chromatographic (GPC, HPLC, GC-MS) and spectroscopic methods (NMR, FT-IR, X-ray wide and small angle scattering) as well as special analytical techniques (RAMAN microscope and MALDI-TOF). An important area of competence is microscopy, which is equipped, among other things, with a state-of-the-art SEM instrument.



DITF TESTING LABORATORIES

Chemical Testing laboratory of ITV Denkendorf Produktservice GmbH (ITVP)

Chemical and physical testing for characterization of polymers and chemicals. These include GC-MS, Headspace GC, NMR, FTIR, UV, ICP, DSC, water content and viscosity measurements.



Biological testing services

We offer tests for in vitro cytotoxicity as a fundamental part of biological evaluation of medical devices as well as microbiological tests for biocontamination control and hygiene monitoring, evaluation of surgical textiles but also a wide range of tests for the determination of the antimicrobial activity. In addition, the Biological Testing Laboratory offers tests for body compatibility of textiles worn close to skin according to the quality label "MEDICALLY TESTED – TESTED FOR TOXINS" of the association FKT (Fördergemeinschaft Körperverträgliche Textilien e.V.).



Testing Laboratory for Accelerated Weathering

Accelerated constant climate and climate change tests for different climatic zones according to standards, DITF developments or customer requirements, which are supported by corresponding material tests such as color and light fastness as well as mechanical, physical and chemical analyses.

Testing Laboratory for Cleanroom Textiles and Electrostatic Behavior

Tests on textiles for cleanroom applications with regard to functional characteristics such as barrier properties and particle emission as well as mechanical characteristics and aging behavior of cleanroom clothing and wiping textiles.

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**The German Institutes of Textile and Fiber Research
Denkendorf** conduct research along the entire textile value
chain from molecules to products. They are a foundation
under public law under the supervision of the Ministry of
Economic Affairs, Labour and Tourism Baden-Württemberg.

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