

## **New series of DIN standards enables comparability of spacer fabrics**

Until now, spacer fabrics have not been tested according to separate test procedures. This meant that important characteristics were not taken into account in the tests. The first national test standard for spacer fabrics has now been developed under the direction of the Institut für Textiltechnik (ITA) of RWTH Aachen University in the joint project NormATex (Standardization for Spacer Fabrics), which is publicly funded by the Federal Ministry for Economic Affairs and Energy (BMWi) within the WIPANO guideline.

Spacer fabrics are textile structures consisting of two textile cover surfaces and at least one spacer thread system. The cover surfaces are kept apart at a certain distance by the spacer thread. This structure gives spacer fabrics special properties that make them a substitute material for other, non-textile materials. As a result of their special properties, spacer fabrics differ from conventional, flat fabrics.

Up to now, spacer fabrics have been tested according to standards for flat fabrics or other, non-textile materials. However, these standards do not take into account the special requirements for testing spacer fabrics. Therefore, objective comparisons between spacer fabrics and each other or with conventional flat fabrics or non-textile materials can-not be made in all areas of application.

In the documents of this series of standards the special properties of spacer fabrics are given special consideration. This ensures the standardized testing of these properties and thus objective comparisons between

1. spacer textiles among themselves,
2. spacer fabrics and flat 2D-textiles and
3. spacer fabrics and non-textile materials

will be enabled.

The developed standardization document DIN 60022-1, Spacer textiles - Terms and definition, sample preparation, is the first standard of the new series of standards and contains specifications for the consistent marking and sample preparation of spacer fabrics. The document was prepared by the working committee NA 106 02 11 AA "Test equipment and test methods for spacer textiles" in the DIN Textile and Textile Machinery Standards Committee under the chairmanship of ITA employee Christoph Peiner. Besides, documents on further standardized test methods for air permeability and thickness of spacer fabrics are planned. In addition, a publicly funded follow-up project focusing on further test procedures is planned. Please contact [Christoph.Peiner@ita.rwth-aachen.de](mailto:Christoph.Peiner@ita.rwth-aachen.de) if you are interested in testing spacer fabrics and the standardised test procedures.

Acknowledgement: Funded by the Federal Ministry for Economic Affairs and Energy (BMWi)

Gefördert durch:



Bundesministerium  
für Wirtschaft  
und Energie

aufgrund eines Beschlusses  
des Deutschen Bundestages

Further information about the DIN working committee and the partners involved can be found here:

- DIN Standards Committee Textiles and Textile Machinery NA 106-02-11 Test methods and test devices for spacer textiles: [homepage](#)
  - MÜLLER TEXTIL GmbH: [homepage](#)
  - Essedea GmbH & Co. KG: [homepage](#)
  - imat-uve gmbh: [homepage](#)
  - Frank-PTI GmbH: [homepage](#)
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### **About the Institut für Textiltechnik (ITA) of RWTH Aachen University**

The core of the ITA Group is the research and teaching institution, the Institut für Textiltechnik (ITA) of RWTH Aachen University, [www.ita.rwth-aachen.de](http://www.ita.rwth-aachen.de). The ITA Group is an international research and training service provider for fiber-based high-performance materials, textile semi-finished products and their manufacturing processes with about 400 employees.