Business plan for a DIN SPEC project
according to the PAS procedure on

"Textiles - Test method for determination of fiber shedding potential during simulated washing"

Status:
for DIN SPEC development after adoption on 2024-04-12

Recipients of this business plan are requested to name **all patent rights** known to them to be relevant to the project and to make available all supporting documents.

Berlin, 2024-07-18 (Version 5)

Table of contents

1. Status/version of the business plan

- **For developing the DIN SPEC after adoption on 2024-04-12**

Changes to the previous version 4:
- Section 2: Table of participating organizations added
- Section 3.1 (General) marginally changed: “microplastics” has been exchanged by “microparticles” in the first paragraph.
- Section 7: Information on consortium leader added

2. Initiator and other consortium members

- Initiator:

Person/Organization	Short description
Dr. Timo Hammer Hohenstein Laboratories GmbH & Co. KG Schlosssteige 1 74357 Bönnigheim Tel. +49 7143 271 410 t.hammer@hohenstein.com www.hohenstein.com	Hohenstein is an accredited testing service provider and industry-oriented research partner that has specialised in the testing, certification and research of all kinds of textile products. As an internationally recognised and independent partner, it supports companies along the entire supply chain.

- Other potential participants:

This DIN SPEC will be developed in a consortium (temporary body) that is open to any interested party. The participation of other experts would be helpful and is desired. It is recommended that

– Suppliers of textile products

– Manufacturers of textile products

– Retailers and importers of textile goods

– Testing laboratories for textiles

take part in the development of this DIN SPEC.

- Organizations that have registered for participation (consortium members):

Person	Organization
Dr. Timo Hammer	Hohenstein Laboratories GmbH & Co. KG
Annika Bahm	Hohenstein Laboratories GmbH & Co. KG
Juliane Alberts	Hohenstein Laboratories GmbH & Co. KG
Taylor Burgdorf	Under Armour Inc.
Candace Davidow	Under Armour Inc.
Helen Warburton	PPT GmbH & Co. KG (James Heal)
Stephanie Terbrack	DIN

3. Objectives of the project

3.1. General

A large amount of fibers are released during the production, wearing and especially the cleaning of fabrics and textiles. These fiber fragments, also known as microparticles, can end up in the air, water and the food chain. It is assumed that they pollute the environment in high concentrations, disrupt ecosystems and pose health risks to humans and animals if they are inhaled through the air or ingested via food and drinking water.

In order to counteract these (potentially) negative influences, the aspect of fiber discharge from textiles should be taken into account right at the beginning of the textile value chain.

Methods for measuring textile fiber discharge range from gravimetric methods, Raman & FTIR spectroscopy, imaging methods to scanning electron microscopy methods. The problem is that these methods are very time-consuming and/or expensive, which is why they are mostly used on the finished end product.

In order to be able to include the aspect of fiber shedding in product development right from the start, a process is needed that quickly and easily classifies textile materials in terms of their tendency to shed fibers. This increased transparency makes it possible to intervene in the production process at an early stage and establish optimizations with regard to low fiber discharge.

The aim of this process is therefore not to replace existing processes, but to supplement them in order to achieve the best possible results.

The basic principle of the test is that a fiber abrasion is mechanically generated on the surface of the textile in an aqueous environment. This serves as a standardized simulation of a washing process. The water containing the fibers is then filtered off and visually classified. The resulting classification category

can be used to determine whether the product tends to release high or low amounts of fibers.

3.2. Planned scope

This document defines a standardized test method for evaluating fiber fragments released from a textile material during simulated washing. The disclosed method enables a quick and simple comparison of the captured fiber fragment discharge amounts among various textile materials, permitting the shedding classification of textile materials based on a visual evaluation. The method can serve as a simplified complement to existing testing methods.

3.3. Related activities

The subject of the planned DIN SPEC is not at present the subject of a standard. However, there are committees, standards and/or other technical rules that deal with related subjects and thus need to be taken into account - and involved or incorporated, where necessary - in this project:

- German Standards Committee for Materials Testing: NA 062-05-13 AA, Textile care, water action, crease behaviour
- DIN EN ISO 4484-1:2023-05, Textilien und textile Erzeugnisse - Mikroplastik aus textilen Quellen - Teil 1: Bestimmung des Material-verlusts von textilen Flächengebilden beim Waschen (ISO 4484-1:2023); Deutsche Fassung EN ISO 4484-1:2023
- DIN SPEC 4872, Prüfmethode für Textilien - Bestimmung der Faserfreisetzung beim Waschen und des aeroben Abbaugrads in wässrigem Medium unter Berücksichtigung der Ökotoxizität; Text Englisch
- AATCC TM212-2021, Test Method for Fiber Fragment Release During Home Laundering
- The Microfibre Consortium Test Method: Quantification of fibre release from fabrics during domestic laundering

4. Work programme

The aim of the project is to develop a DIN SPEC according to the PAS procedure (see www.din.de/go/din-spec-en). The DIN SPEC shall be consistent with the body of German standards and shall not be in conflict with any DIN Standard.

The kick-off meeting took place on April 12th, 2024 in a virtual meeting. The project duration will be about 7 months.

At this kick-off meeting, the consortium for developing the DIN SPEC has been constituted, further organizational issues have been decided on and clarified, and, where possible, work on the subject matter has been begun.

A draft for public commenting will not be published.

A total of 4 half-day project meetings (kick-off meeting and work meetings) will be held as web conferences, during which the content of the DIN SPEC will be presented, discussed and approved. The content of the DIN SPEC can be drawn up by individual consortium members or in working groups.

Dates of further meetings and/or web conferences are to be agreed on within the consortium in consultation with DIN.

The DIN SPEC will be drawn up in English (language of meetings, minutes, etc.). The DIN SPEC will be written in English.

NOTE The calculation covers only one language version. Please keep in mind the fact that other language versions involve additional expenses; for this reason, they shall be agreed on separately. If another language version is desired, Beuth/DIN can provide a translation. Requests for translations are to be submitted after the DIN SPEC manuscript has been approved for publication.

5. Resource planning

Each consortium member shall bear the expenses he/she incurs as a result of participation in the project.

If the DIN Executive Board approves the project, the initiator of the project will then conclude a contract with DIN.

The performance of this project as set out in the programme of work will result in DIN incurring costs to a total of 28.531 euros, excluding VAT. Additional services give rise to additional costs.

Sharing the burden of these costs is a prerequisite for membership in the consortium.

By adopting this business plan, consortium members declare their willingness to bear their share of the project costs, which is based on the number of consortium members.

Each consortium member is to declare this willingness to take on his/her share of costs by individual agreement with the initiator.

If the consortium is expanded later, the additional consortium members shall pay the initiator the same fee to cover costs as the original consortium members.

The initiator is obliged to use the financial resources that have been made available to him by the consortium members solely for purposes furthering the project, and to return any surplus amount in equal parts to all consortium members without delay.

6. Rules of cooperation in the DIN SPEC consortium

This project is governed by the PAS procedural rules. All interested parties and consortium members are to inform themselves of these procedures by going to www.din.de/go/din-spec-en.

The consortium will be constituted during the course of the kick-off meeting. The kick-off meeting will not take place until the business plan has been published and approved by DIN's Management Board. The consortium shall comprise at least three members from different organizations[1]. It is not necessary that these members come from different areas and represent different stakeholders. By approving this business plan, the interested parties declare their willingness to participate in the consortium and will be formally named as consortium members, with the associated rights and duties. Participants at the kick-off meeting who do not approve the business plan are not given the status of a consortium member and are thus excluded from further decisions made during the kick-off meeting and from any other decisions regarding the project.

If an organization (e.g. an association) sends someone who is not an employee to the consortium, this person shall be authorized by the organization, who shall provide proof of this to DIN.

Each consortium member is entitled to vote and has one vote. If an organization sends several experts to the consortium, that organization has only one vote, regardless of how many consortium participants it sends. Transferring voting rights to other consortium members is not permitted. During voting procedures, decisions are passed by simple majority; abstentions never count.

As a rule, the consortium is closed once it is constituted. The current consortium members shall decide whether any additional members will be accepted or not.

During the kick-off meeting, the consortium members shall elect a consortium leader, who is responsible for content management and any decision-making and voting procedures. The leader is supported by the responsible DIN Project Manager, whereby DIN will always remain neutral regarding the content of the DIN SPEC. Furthermore, the DIN Project Manager shall ensure that DIN's rules of procedure, rules of presentation, and the principles governing the publication of DIN SPEC have been observed. Should a consortium leader no longer be able to carry out his/her duties, the DIN Project Manager shall initiate the election of a new leader.

[1] Organizations are participating legal entities that send the experts to the DIN SPEC consortium and are assigned to a corporate structure as defined by § 15 of the German Stock Corporation Act or § 271 paragraph 2 of the German Commercial Code.

The DIN Project Manager is responsible for organizing and leading the kick-off meeting, in consultation with the initiator. Further project meetings and/or web conferences shall be organized by the DIN Project Manager in consultation with the consortium leader.

If consortium members cannot be present when the DIN SPEC or its draft is approved, an alternative means of including them in the voting procedure shall be used (e.g. in writing, electronically).

All consortium members who voted for the publication of the DIN SPEC or its draft will be named as authors in the Foreword, including the organizations which they represent. All consortium members who voted against the publication of the DIN SPEC or its draft, or who have abstained, will not be named in the Foreword.

Any expansion of the consortium at a later date is decided on by the members making up the consortium at that time. It is particularly important to consider these aspects:

a) expansion would be conducive to shortening the duration of the project or to avoiding or averting an impending delay in the planned duration of the project;
b) the expansion would not result in the project taking longer to complete;
c) the new consortium member would not address any new or complementary issues beyond the scope defined and approved in the business plan;
d) the new consortium member would bring complementary expertise into the consortium in order to incorporate the latest scientific findings and state-of-the-art knowledge;
e) the new consortium member would actively participate in the drafting of the manuscript by submitting concrete, not abstract, proposals and contributions;
f) the new consortium member would ensure wider application of the DIN SPEC.

To allow the legal reproduction and distribution of results for the purposes of project work, the consortium members grant DIN rights of use on the basis of the copyright that will accrue to them for the results of their work on the DIN SPEC. The transfer of these utilization rights does not prevent the consortium members from using and further developing the knowledge, experience and findings they bring to the project.

Consortium members are requested to inform DIN of all patent rights known to them to be relevant to this DIN SPEC project.

Subsequent changes to the scope (Section 3.2) or to the resource planning (Section 5) require, in addition to a two-thirds majority of all votes cast, the approval of DIN.

7. Contacts

- Consortium leader:
  Annika Bahm
  Hohenstein Laboratories GmbH & Co. KG
  Schlosssteige 1
  74357 Bönnigheim
  Tel. +49 7143 271 458
  a.bahm@hohenstein.com

  www.hohenstein.com

- Project manager:
  Stephanie Terbrack
  DIN German Institute for Standardization
  Am DIN-Platz
  Burggrafenstraße 6
  10787 Berlin
  Tel.: + 49 30 2601- 2423
  Fax: + 49 30 2601 - 42423
  e-mail: stephanie.terbrack@din.de

- Initiator:
  Dr. Timo Hammer
  Hohenstein Laboratories GmbH & Co. KG
  Schlosssteige 1
  74357 Bönnigheim
  Tel. +49 7143 271 410
  t.hammer@hohenstein.com

  www.hohenstein.com

Annex: Project schedule (preliminary)

DIN SPEC project	2024																								2025	
	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan	
Initiation																										
1. Request and review																										
2. Business plan drawn up																										
3. Publication of business plan																										
Development phase																										
4. Kick-off meeting/consortium constituted																										
5. DIN SPEC drawn up																										
6. DIN SPEC approved by consortium																										
Publication																										
7. Review and release by DIN																										
8. Publication of DIN SPEC																										
Milestones							**K**			**W**		**W**				**W / A**										

K Kick-off
M Project meeting
W Web conference
A Adoption of DIN SPEC