

MaxiKnit – Development of a process for the production of high-volume stitch-knitted nonwovens with reduced fibre consumption

Problem / Motivation

- Currently unbalanced (anisotropic) tensile strength ratio of these stitch-knitted nonwovens
- Material thicknesses up to a maximum of 7 mm
- Usually Nonwovens with high strength and dimensional stability require high fibre usage and high material compaction
- Aim: Development of stitch-knitted nonwovens with reduced density and increased dimensional stability through optimised fibre use
- Establishment of voluminous stitch-knitted nonwovens in seat upholstery, filtration, heat and sound insulation

Solution

- Stitchbonded nonwovens with lower density due to reduced fibre usage
- Increase in fibre input and improvement in isotropy in the MD: CD = 1 : 1 direction thanks to a newly designed fibre pile feed and adapted working elements
- Coordination of the working elements with each other
- Increase in the dimensional stability of the stitch-knitted nonwoven

Project Launch

09/2025

Project Partner

Available for inquiries



Cross-section of a 3D nonwoven fabric

Acknowledgement

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