Next Material

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Dimension - Development of 3D structures based on knitted jacquards with felting and non-felting yarn

In her master research work student Sarah Grobe tried to find out how to create 3D-Stuctures and surfaces by combing yarns with different felting properties in one knitting construction. After discussing several possibilities she focused on jacquard techniques.
In the beginning she started to design different jacquards with two or three colours in various distributions. All designs were tested with different technical constructions like twill backing, striped backing and reverse backing to receive comparable results. The probably most important task of the research work was to find out the correct finishing process. After several further tests and variations it became quite clear that there is more than one solution for the development of 3D designs in wool but each different kind of pattern needs its own concept in selection of yarn, technic and finishing processes. In consequence the research´s work result was the collection concept Dimension with several types of knitted fabrics with various surfaces, handfeels and looks. Due to the use of wool, the upholstery is colourfast, dirt repellent and hardly inflammable. It is extremely robust, flexible and does not crease. Furthermore wool has a warming and breathable property and does not absorb odours and therefore creates a pleasant and healthy indoor ambiance. The aspect of the reuse of old furniture and the usage of wool as a biodegradable, renewable material makes the furniture environmentally friendly and sustainable.

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