

**DUKTA –
 MOVING SOLUTIONS IN WOOD**

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dukta



Challenge

The innovative process for cutting and perforating wood, known as dukta (www.dukta.com), allows stiff wood panels to become flexible using a simple production process. The material can be formed into two-dimensional or three-dimensional shapes. As a result of the perforations on the surface, the shaped material has excellent acoustic properties. This allows for new approaches to designing more effective ceilings and wall coverings.

dukta was developed by two designers from Zurich: Serge Lunin and Christian Kuhn. As part of a project for the Swiss Commission for Technology and Innovation (CTI), the material is further developed at the Zurich University of the Arts and the Bern University of Applied Sciences. Prototypes of marketable products are being produced in cooperation with the industrial partner, Schreinerei Schneider.

Solution

The project members have examined and tested the production process in the laboratory using CNC technology, and adjusted it for industrial production. They have developed appropriate substructures and assembly techniques, as well as tried out various ways of coating the wood material before and after processing it. The team has also investigated the material's behaviour with regard to emissions, and established suitable materials with low levels of volatile substances. Working together with architects and specialists in acoustics, they have developed various ceiling systems using functioning prototypes. Furthermore, they have built a partition wall system based on solid wood and developed prototypes for use in the area of furniture.

