SONOBOARD, THE NEXT GENERATION FORMWORK SHEET

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INTRODUCTION
Sonoform AB has a new patent pending on a glass fibre reinforced sandwich panel used for concrete formwork. The material will revolutionise the formwork industry because of its excellent mechanical and physical properties. The sandwich panel is produced in one step, with fibre reinforcement and surface material which makes it a high-efficient process and a low-cost product. This is necessary for meeting the market demands.

BODY OF THE ABSTRACT
2001 Sonoform patented a sandwich sheet produced in one step, Fig. 1. The product, which is called Sonofloor®, is used as floors within transport industry, such as buses, trailers and house mobiles. The sheet is made of polyurethane foam with stitch bonded bi-axial glass fibre mats at both surfaces. The advantages compared to competitive materials are water resistance, durability, high stiffness and low-weight.

Fig. 1: Sonofloor®

The sandwich sheet is made as shown in Fig. 2. Polyurethane is injected in a die where a glass fibre mat and a net of polyamide are placed. After injection, the second mat is placed on top before the die closes by a hydraulic press. The function of the polyamide net is to fixate the two glass fibre mats close to each surface. The polyurethane foam is created by a blowing agent and the curing starts when the die is filled; residual material comes out through air outlets.
During the last years Sonoform has developed the concept and found new applications and markets. The most interesting market at the moment is the construction industry, where a huge amount of formwork sheets are used. The standard formwork sheet today is form plywood, a conifer or spruce plywood with a impregnation of phenol in the surface. Sonoboard is produced in the same way as Sonofloor® and a surface foil is placed at the bottom and top of the die. The polyurethane works as a glue and join the surface together with the structure.

The Sonofloor® panel concept is evolving and Sonoform is constantly looking for new applications and markets.