Packing solution for fixing pot plants and other sensitive products

Reference No: B76191

CHALLENGE
The mail-order trade with potted plants or other sensitive products places particular demands on packaging for a safe and clean transport of the goods. While the share of mail-order sales in Germany has almost increased by a factor of twenty since the year 2000, the mail-order share in the garden market has almost doubled in the same period. A major obstacle to the exploitation of the market potential is the problem of ingenious and cost-effective transport packaging. Currently, the standard is a relatively expensive plastic blister that has to be provided for different plant sizes and shapes, plus filling material for the cartons, so that the plant is not damaged in the box. Therefore, there is a need for significantly cheaper packaging.

INNOVATION
The invention by Hochschule Augsburg describes a packaging method for securely fixing potted plants into shipping cartons. A shrink tube and film clamps are used to fix the plant. A tighter fixing is achieved by heating the shrink tube accordingly, so that by shrinking the flower pot is pressed tightly to the cardboard bottom.

COMMERCIAL OPPORTUNITIES
• Safe, cost-effective packaging for plants and other sensitive products
• Only a few different packaging materials are needed
• Good size independent solution for fixation

DEVELOPMENT STATUS
The packaging solution is fully developed. Depending on the packaged product, the optimal cardboard thickness and the optimum thickness and heating of the shrink-wrap film has to be determined by means of test procedures. The innovation is suitable for full or partial automation e.g. through a heat tunnel.

Left: A potted plant located in a cardboard is fixed by a shrink tube and a film clamp. For the fixation the shrink tube is threaded through an aperture in the cardboard and tensed. Right: Fixation of the tensed shrink tube with a second film clamp on the outside of the cardboard.