

# DSM wins

## 'Innovation in Environment Award' for lightweight air cargo container panels

New lighter container panel solution can save large quantities of fuel & energy



The composite panels of the 'Jettainer' uses Aeronite® resin and Dyneema® fibre from DSM

DSM NV of Holland has been awarded the international AVK award in Innovations and Environment for a new, lightweight version of air-cargo containers. The containers help airlines to cut carbon emissions by 28,000 tons a year, the equivalent of taking more than 8500 cars off the road.

A number of excellent composites solutions were recognised during 'Composites Night' at Composites Europe 2009, the International AVK Conference in Stuttgart, Germany, in October.

Each year, the AVK (Industrievereinigung Verstärkte Kunststoffe eV, the European Federation of Reinforced Plastics) presents its Innovation Award for outstanding developments in conjunction with reinforced plastics.

DSM won the award for the development of new, ultra-strong air container panels, RP10 panels, made

from advanced composite material technology from DSM. The panels are made with DSM's Aeronite® resin and Dyneema®, reputedly the world's strongest fibre.

DSM has licensed the technology to DoKaSch GmbH, a leading manufacturer of air cargo equipment, who made the containers commercially available. Following two years of successful flight trials, a total of over 400 containers are already in service by various airlines including Lufthansa.

The container panels are designed to provide maximum strength at a minimum weight. The RP10 panels have superior impact resistant and are nearly 50% lighter than standard aluminum panels used in cargo containers.

The weight saving can result in a significant drop in fuel consumption. A typical mid-size cargo fleet will load around 5000 containers over the course of a year which could result in

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savings of up to 330,000 litres of fuel, yielding a 28,000 ton reduction in CO<sub>2</sub> emissions.

Just recently, more than two hundred airlines together with the International Air Transport Association (IATA) have committed to halve emissions by 2050, from 2005 levels.

The AVK Innovation Award is a prestigious international award for solutions to state-of-the-art technological issues by means of composites and thermosets and highlights the achievements of the reinforced plastics industry in the field of environmental protection. The awards were presented at the yearly international conference of the Federation of Reinforced Plastics (Industrievereinigung Verstärkte Kunststoffe e.V) in Stuttgart, Germany.

[www.dsm.com](http://www.dsm.com)

## AVK recognises top composite solutions



BMW group received an Innovation Award at the AVK Composites Europe show for its development of a plastic transmission cross member. This is a structural component for aggregate storage manufactured by injection moulding. Apart from functioning as gearbox bearing, the transmission cross member also contributes to the total vehicle rigidity.

A special Innovation Award was presented to CPM (Composites Products Mücke) for its development of the electric 'SplashCar'. The vehicle, driven by joystick, features systematic lightweight construction with an efficient electric drive plus advanced battery technology.

[www.avk-tv.de](http://www.avk-tv.de)



Kai Fischer, a researcher at Aachen University, won the Academic Award for the development of the gap impregnation technique. This is a variant of resin transfer moulding (RTM), and accelerates the component manufacturing process.