

CASE STUDY

DSM



Increased performance in bio-based automotive materials

The need for innovation

As the limited availability and the environmental impact of fossil-based raw materials create a clear need for new and sustainable raw materials, the automotive industry is having to meet tough sustainability targets. Further to this, today's automotive consumer is demanding for more sustainable products as they become more and more aware of the CO₂ footprint of the cars they drive.

The response through innovation

In response to these important trends, DSM introduced in April 2010 two bio-based performance materials for the automotive industry. Both materials were developed by leveraging DSM's unique competences across Life Sciences and Materials Sciences.

Palapreg® ECO P55-01, a bio-based resin for automotive vehicle body parts, including exterior panels, and EcoPaXX™, a bio-based, high performance engineering plastic, are DSM's first bio-based products for the automotive industry, and have been developed without making any sacrifice to product performance.

Palapreg® ECO is composed of 55% renewable resources, making it the composite resin material with the highest bio-based content available on the market today. EcoPaXX™ is a high-performance polyamide that combines the benefits of a high melting point (approx. 250° C), low moisture absorption and excellent resistance to various chemical substances, including for instance road salt. Approximately 70% of the material is based on building blocks derived from castor oil, a renewable and non-edible resource.

DSM is pioneering the development of 2nd generation biotechnology which will go a long way to ensuring that demand for bio-based products, including biofuels, will be met without any meaningful impact being made on food prices or food production.

Further information on this innovation may be found under:
<http://www.dsm.com>