Favoring Feathers for New Bioresin

Source: PRW

Posted: 10 February 2012

A bioresin derived from chicken feathers claims to be the first such material on the commercial market produced from a non-food source. The Fibre Reinforced Bio-Composite, which comes from Eastern Bioplastics in the US, is distributed in the UK by biopolymer specialist A&O Filmpac. It is claimed that the material's properties are close to virgin polypropylene, with low specific gravity of 0.9g/cc for the 30% fibre-filled grade and slightly higher stiffness. The material can be used in injection moulding processes, with target markets said to include automotive parts, office furniture, DIY products and sporting goods.

With more than a million tons of chicken feathers apparently headed for European landfill sites every year, their use in plastic manufacturing makes sense, said Eastern Plastics' president and chief executive Sonny Meyerhoeffer. "We have spent four years developing the technology to turn waste chicken feathers into a truly sustainable material that does not interfere with the food chain and we are pleased to see its launch on the European market with A&O," he added. Lutz Richter, owner of Olney, Buckinghamshire-based A&O Filmpac, said the collaboration with Eastern was "an exciting development and one that will break new ground and increase market acceptance of bio materials in Europe".

La Seda de Barcelona Introduces New 'Green' Resin

Source: European Plastics News

Posted: 9 February, 2012

Leading European PET polymer producer La Seda de Barcelona has introduced a new 'greener' resin option to its product portfolio suitable for food and beverage packaging. Artenius Elite, combining up to 50% post-consumer recycled PET with standard virgin PET raw materials, was developed by Barcelona, Spain-based LSB group's Artenius PET resins division. This sustainable food-safe product is also "remarkably pure", according to Artenius.

The new resin, currently produced at the group's Artenius Italia plant in Italy, will soon also be manufactured at its Spanish plant in El Prat de Llobregat, Barcelona. Decontamination challenge tests carried out by Fraunhofer Institute have found that the Artenius production process results in resins as pure as the 100% virgin resin, even under the worst case contamination scenarios, the company says. "We have successfully created a PET packaging material that includes recycled resin in its manufacturing process, but with the same quality as virgin PET. The product development was a rigorous joint effort between R&D, our pilot plant, production sites and our in-house suppliers of recycled PET flakes," recalled Jordi Foguet, Artenius's technology manager.

The European Food Safety Agency (EFSA) has ruled that Artenius Elite's process should not be treated differently from monomers manufactured by chemical synthesis. The process has also been approved by the US Food and Drug Administration (FDA) through its non-objection letter, said the company. There are nine different references of Artenius Elite resins available to meet various packing and moulding process needs. Depending on the base resin used, the product is suitable for processing as stretch blow moulding in one or two-stage processes, it stated.

Showa Denko Picks Myriant for Succinic

Source: ICIS Chemical Business
Posted: 30 January, 2012

According to Myriant's press release, the company has been chosen by Japanese chemical firm Showa Denko K.K. (SDK) to be its global supplier of bio-succinic acid. SDK will use biosuccinic acid for the production of high-performance biodegradable polybutylene succinate (PBS), a key polymer used in the production of bioplastics. SDK is a producer of PBS under the trademark Bionolle® and Starcla®, a key component used in the production of bioplastic products that include biodegradable mulch films and compostable bag applications.

I've mentioned the PBS market in my bio-succinic acid article, where PBS is currently produced by combining petroleum-based succinic acid and 1,4 butanediol (BDO). Of course, in SDK's case, the succinic acid component will soon be replaced by Myriant's product although I am not sure if SDK will also soon source a bio-based BDO to make it 100% renewable-based. I've also mentioned that current petrochemical-derived PBS producers aside from SDK included Mitsubishi Chemical, Samsung Fine Chemical and a couple of companies in China, according to Mitsubishi Chemical. The PBS market is currently at 5,000-6,000 tonnes/year and is expected to grow to 50,000 tonnes/year in the next five years, Mitsubishi Chemical said.

BioAmber, who was picked by Mitsubishi Chemical to be its bio-succinic acid supplier, noted in its IPO filing that addressable market for PBS, PBS blends and PBS composites is around $2bn, while modified PBS is $500m. Polybutylene succinate can also be combined with polymers such as polypropylene (PP), polystyrene (PS) and polycarbonate (PC) as well as bioplastics such as polylactic acid, polyhydroxyalkanoate, and poly-3-hydroxy butyrateco-valerate. In composites, PBS can be combined with fibers or fillers for applications such as automotive interiors, nonwovens, construction materials and consumer goods.

Cardia Bioplastics Extends Supply of Kitchen Waste Bags in China

Source: Packaging Europe
Posted: 26 January, 2012

The Board of Cardia Bioplastics Limited is pleased to announce that it is supplying three more City Districts in China to provide householders with kitchen waste bags made from Cardia renewable Biohybrid™ products that contain less oil and have a lower carbon footprint compared to conventional plastics. Cardia also announced on 16 December 2011 that it was awarded the supply contract by the City of Nanjing.

The four City Districts supplied by Cardia now include:

- Shangai Pudong (City District) population of 7m people.
- Hangzhou West Lake (City District) population of 8m people
- Yuhang (City of Yuhang) population of 1m people.
- Nanjing (City of Nanjing) population of 7m people.

The orders are for supplying Cardia Biohybrid™ bags for trials in households that are being conducted and will continue over the next six months. The total sales value for the supply of bags for the trials is expected to be in the order of AUD$600,000 over the next 6 months. If the orders extend beyond the trial period, it could grow to cover a larger radius of householders in each region where the population as shown above combines to a potential market of 23 million people. If all or some of these trials produce successful results and Cardia Biohybrid™ kitchen waste bags are fully adopted by the city districts, then an annual contract would be negotiated. Until then, no long-term commitment can be guaranteed.

Mr. Jackie Chen, Cardia Director and Head of China Operations said he was delighted with the outcome and will continue to work with the Government officials of these City Districts to secure long-term contracts in China."The Cardia range of renewable Biohybrid™ and certified compostable products also meet the Chinese packaging regulations, enacted in June 2008. Our Nanjing manufacturing business is one of the few Chinese companies awarded with the prestigious China Environmental Label," he said.

"This is further validation not just of the rapidly increasing market for bioplastics products, but also of Cardia's excellent Government relationships in China, following from our supplying the 2008 Beijing Olympics, Paralympics and 2010 Shanghai World Expo." Mr Chen said. The potential to grow sales revenue from this business opportunity in China is high on Cardia's marketing agenda in 2012. Cardia's renewable Biohybrid™ kitchen bag business for the China market is based on Cardia's proprietary Biohybrid™ technology using less oil. Cardia has also a certified compostable offering for its organic waste management business, where trials are underway in Australia, New Zealand, Malaysia, Canada and the UK.