Heat Up Profits. Cool Down Costs.

TURBOSCREWS

Plastic Engineering Associates Licensing, Inc.

PLA FOAM NEWSLETTER **FALL 2010**

Mario Grenier, V.P. & General Manager of Dyne A Pak, Inc., Quoted in an October 12, 2010 Article in Bio-Refining Magazine

One of our licensees of Turbo-Screws® technology for Ingeo/PLA foam extrusion, Canada-based Dyne-a-Pak Inc., manufactures food packaging materials out of NatureWorks' PLA. Mario Grenier is Dyne A Pak's General Manager and was recently asked by ***Bio-Refining Magazin***e about his company's experience with manufacturing PLA foam food packaging trays.

The following is an excerpt from the article:

"Interest is growing exponentially," says Mario Grenier, Dyne-a-Pak's general manager. "We have a lot of demand right now on the West Coast because of the bans on polystyrene many cities have enacted.

On the East Coast, we see an interest from specialty stores and packers that are packing specialty products like organic meat." Although Grenier agrees that biobased plastics and foams are more expensive than petroleum-based products, he notes the price of PLA materials is on par with other product lines that can serve as a replacement for materials like polystyrene foam, such as laminated cardboard.

Pictured above, the latest Ingeo™ foam manufactured with Turbo-Screws® PLA foam technology at Dyne A Pak, Inc., one of our licensees.

PLA Foam Movie - Click Below

"We think that premium will disappear over time, as we get more volume and we get more efficiencies in production," Grenier says. "I think if this product right now could be at the same price as polystyrene, we would probably outsell polystyrene. It's a matter of bringing the cost in-line with oilbased polymer. At that point, I think there is no limitation on the polymer."

To visit Dyne A Pak, Inc.'s website, click here.

Recent Developments in PLA Foam Extrusion & Thermoforming

The brown color foam shown in the picture at the top of this newsletter was developed at Dyne A Pak, Inc. and is being required by Seattle, Washington food merchants. The idea is to allow compostable materials to be instantly recognized in the municipal waste stream and in certain markets, like Seattle, the materials claimed "compostable" have to be verified by an independent third party. Cedar Grove Composting is one such organization.

Pictured below, the latest Ingeo ™ foam trays manufactured with Turbo-Screws® PLA foam technology at Dyne A Pak, Inc., one of our licensees.

IN THE NEWS

Another area of recent development at Dyne A Pak, Inc.'s manufacturing facility has been the extrusion of PLA foam sheet for processor grade poultry trays (pic below, left)

Above left is a picture of the processor grade poultry tray foam. High closed cell count, density, surface appearance, thickness and gauge all mirror that of polystyrene processor grade poultry tray foam. Above right is a picture of Jim Fogarty (left), Chairman of Plastic Engineering Associates Licensing, Inc. and Serge Gelinas (right), a 35 year veteran of the foam industry & valued employee of Dyne A Pak, Inc.

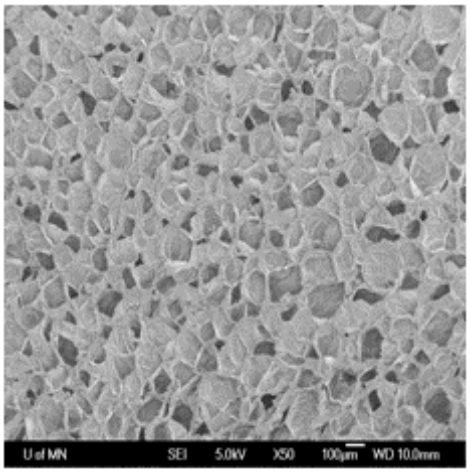
PETROLEUM WATCH

Spot Oil price/barrel: $86.19 USD November 10, 2010

Wall Street Journal reports: "Just One Word: Bioplastics"

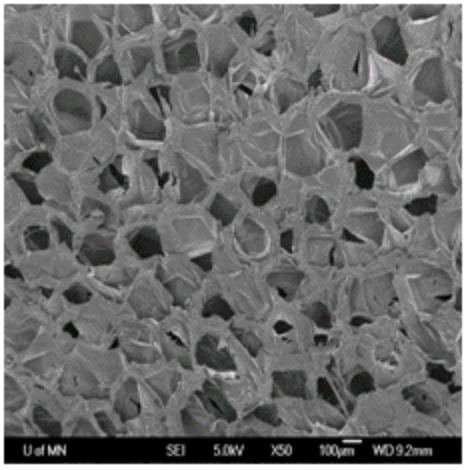
In the October 19, 2010 edition of the Wall Street Journal it is reported that plastics derived from plant materials make up 0.2% of the estimated 350 million metric tons of plastics consumed each year in the world. It also reports that bioplastics volume could grow at 30% a year over the next 10 years due to growing demand for eco-friendly packaging and other bioplastic products. The Wall Street Journal also notes it is a trend that spans the entire world. Read the article by clicking here.

A Closer Look at Polystyrene vs. Polylactic Acid Foam Cells



(Above) Ingeo/PLA foam sheet

99% Closed Cell; 50X magnification



(Above) Polystyrene foam sheet

99% Closed Cell; 50X magnification

NatureWorks®

In The News

We are all anticipating before year end 2010 the decision by NatureWorks, LLC as to the location of their second Ingeo/PLA production plant. Steve Davies, marketing & public affairs director for NatureWorks, LLC has been quoted as saying that " .... demand for PLA will continue to increase," and expects the full 140,000 metric tons/year capacity at Blair, Nebraska will be sold out within the next three years. Mr. Davies further stated, "for that reason, we are looking at a second plant location now." Mark Verbruggen, NatureWorks' CEO has been quoted numerous times in the press that the second plant should be operational in the 2013/2014