

Big News in a Small Package

Multifilm Packaging's Quarterly Newsletter

Multifilm Teams With University of Illinois

By Marcus Magnusson

As most of our readers know, Multifilm installed a Geothermal Process Cooling & HVAC system in 2010 that uses cold ground water to cool our equipment and air-condition our plant. While the system has exceeded our expectations and reduced our total energy consumption by more than 31%, we felt that the system could be optimized further.

Last fall we teamed up with the Department of Industrial & Enterprise Systems Engineering at the University of Illinois at Champaign Urbana. A group of three students analyzed our Geo system as a part of their Senior Project.

For the students, this was an opportunity to apply the skills they had honed over the past three and a half years to a real-world situation. For Multifilm, it was an opportunity to receive a detailed analysis of our system and key

recommendations for improvements and tweaks. After multiple visits to our plant, the project culminated in December with a detailed presentation in front of Multifilm management, faculty, and fellow students. The students created a mathematical model of the system that allows us to specify inputs and plant conditions, and give us an estimated amount of cooling.

Says Dave Rohrschneider, Multifilm COO: "The model that the students made has helped us understand our system better, and given us several ideas to make it even more efficient. But above all, it should be a great starting point for us to help other manufacturers install a similar system, but quicker, more efficiently, and at a lower cost."

Multifilm's CEO, Olle Mannertorp agrees with Rohrschneider.



The team of engineering students from U of I working on the Geo Project

"Energy isn't getting any cheaper. Most manufacturers heat something up and then cool it down, and use a lot of energy in the process. Chances are, they could cut their energy consumption significantly with a system like ours. With this model, we can help bring the ROI of such a system down to very reasonable levels."

The net result is a greener, more competitive American manufacturing industry. Interested? Visit www.MyGeoCool.com

The Giving Season

During the holiday season, we try to remember to be thankful for what we have. Knowing that there are those in our community of Elgin, IL, that do without during this time of the year, we at Multifilm take pride in helping our own.

This year we chose to decorate our office tree with angel tags from the Salvation Army. On each tag was written the gender and age of a child and what they want more than anything from Santa—especially heartbreaking to see on their wish lists were the basics we

often take for granted, like a winter coat. We were able to help fifteen children this year, and we look forward to helping make Christmas happen for more children next year!

This year we also gave \$4,700 to the Community Crisis Center of Elgin, a local charity that provides comprehensive services to individuals and families in crisis due to domestic violence, sexual assault, or economic/financial difficulties. The Community Crisis

Center was founded in 1975 by a group of dedicated volunteers to meet the needs of individuals and families in crisis, and we are proud to support them.



By Ida Mannertorp

Multifilm Purchases New Rebro Extruder

By David Rohrschneider

Multifilm recently entered into an agreement with Chicago-based Synco USA to purchase a Plasmac Omega 60, a recycling extruder that transforms plastic trim and scrap into valuable, high purity resin. Multifilm will receive the Omega 60 that will be on display and running with clear Multifilm film at the NPE 2012 International Plastics Showcase April 1-5 at the Orange County Convention Center in Orlando, Florida.

The repro line will have a capacity to recycle about 250 lbs/hr of our production scrap back to virgin resin that can then be used in our film products.

“About half of the scrap generated at our plant is clear film, mainly start-up rolls. This material has so far been sold to a local injection molding company and will now be recycled back into our own products” says Peggy Carney, Multifilm’s purchasing manager. “The rest is printed or metallized scrap and will be re-pelletized and sold to local injection molders for non-food application. This not only saves us money but is also an important step in our journey to a more sustainable work place”.



Before (top) and after (bottom): the scrap gets turned into usable resin.



Supplier's Corner - On the Core and Out the Door

By Marty Gertler

Like most businesses, Multifilm depends on good, profitable, reliable and knowledgeable suppliers. Our third contributor, The Newark Group, not only supplies us with cores, but is also a valuable partner in our sustainability program.

For almost 100 years, The Newark Group has been a leading recycler, manufacturer and converter of 100% paperboard products, including tubes and cores at our Wisconsin location. Today we operate 16 facilities across the U.S. and Canada. We began the relationship with Multifilm in 2008 by supplying cores, which has since expanded. We are now a partner in Multifilm’s “zero waste-to-landfill” initiative, recycling the Gaylord boxes and pallets that are used for shipment of materials. For both companies, sustainability is at the forefront of operations.

The cores used in the flexible packaging industry are much more high tech than they look. The base material is paper, and as such is a living product. If correctly manufactured, the dimensions remain stable, but the slightest flaw in the production process can result in major issues. Many food processors have experienced loose cores in their packaging machines—

the operator grabs a roll by the core and it comes right out. Once gone, it cannot be put back in and the roll is ruined. The issue: water content was too high. During processing, transportation and finally at the end-users plant, the core has dried out and thereby shrunk enough to become loose. If the core is too dry, the inner diameter will simply be too small to fit the shafts in the slitters at a manufacturer such as Multifilm.

Our manufacturing process monitors the humidity continuously and adds the right amount of water and glue to the process to guarantee that the core dimensions stay within the tolerances we guarantee throughout the lifetime of the product, regardless of conditions. In the middle of winter in Canada or the hottest day on Barbados, the core will stay in place. Multifilm chose us as their supplier after extensive tests, but this was not the only reason. We also share a commitment to the environment.

The Newark Group has been a leader in the development of resource-conscious packaging solutions since long before it became fashionable to focus on sustainability. We collect, process and convert in excess of 1.5 million tons of recovered fiber annu-

ally. Our relationships with companies, retailers and distribution centers allow for quality board to be recovered and re-pulped for use in our paperboard products, all of which are made of 100% recycled board. We are proud to include the recycled Gaylord boxes and pallets in that mix, and to continue to supply Multifilm with 100% recycled cores, some of which include the materials we recover from Multifilm.

“The relationship with Multifilm is particularly valuable to us because it allows us to close the sustainability loop,” says Owen Neary, VP Sales and Marketing for the Newark Paperboard Products division of The Newark Group. He adds, “While we often try to recover recyclable materials from our customers, Multifilm was the one who actually initiated that conversation with us. It doesn’t get better than that.”

For more information please visit www.newarkgroup.com.

**THE
NEWARK
GROUP**
Recycling. Manufacturing. Paperboard Innovations.

Your Questions Answered: Biodegradable Film

By Olle Mannertorp

Q&A

with Olle Mannertorp

Get answers to your technical questions about packaging and machinery.

In every issue, Olle Mannertorp, our CEO and resident film and machinery guru with over four decades' worth of experience on two continents, will answer your technical questions related to flexible packaging materials and machinery. Submit your question to AskOlle@multifilm.com. Biodegradable film is the topic.

Q: We make CPP bags and we used to buy from Multifilm. When we asked if you made a biodegradable CPP you answered no, so we took our business to another supplier. How come Multifilm doesn't make a biodegradable film when others do? I still get your newsletter and can see that you put a great emphasize on being green with the exception of your film. We find that a bit strange.

Puzzled Ex-customer

Dear Ex-customer,

Let me first say that we would love to get your business back. It is not that we cannot extrude our cast PP film with a so-called oxo degradable additive; it is simply that we feel this is greenwashing.

These types of additives require oxygen and sunlight to degrade. When

exposed long enough and at temperatures above 65F (18C), the film starts breaking down into smaller and smaller pieces until you can't see them. The film will not age any faster in a landfill where there is a permanent lack of oxygen and sunlight. Consequently, these additives only work when you litter. They also work in warm ocean water, causing the plastics to break down into small pieces that animals unfortunately can consume, causing more harm than good. Besides, these additives can have some very negative effects on the recycling systems that are in place by most film processors. As an example, we sell some of our scrap to a local injection molder that makes tackle boxes. They use both printed and unprinted scrap and this is an excellent method of eliminating plastic scrap from our landfills. An oxo additive would make these boxes brittle and reduce the life time of their products in such a way that their existence would be threatened.

Polypropylene and polyethylene are by nature not biodegradable... an oxo additive breaks these materials down to small enough particles that you can't see them...

Oxo additives were used for a short while in PET bottles and milk jugs. The result was that the recycling chain actually broke down for a while in California. Leaking bottles was the result and at the end of the day the industry agreed to eliminate oxo additives all together in these two products. Polypropylene and polyethylene are by nature not biodegradable and the only thing an oxo additive does is to break these materials down to

small enough particles that you have a hard time seeing the litter. This does not solve any problems, but rather creates new (and in some cases much worse) problems than litter does. At least, when you see a plastic bag where it is not supposed to be, you can pick it up.

Oxo degradable films were originally developed for groundcover films, mainly for strawberry farming. The ground was irrigated under the film, holes were cut for the plants to grow through the film and the berries did not touch the soil. And when the season was over, the film was so brittle that you could plow it into the soil. Eventually, the process broke down the material to molecular sized particles and as such, these particles are harmless and create no problem for the soil or us as consumers of the berries.

We at Multifilm do not believe that we should promote a product that can give the impression that littering is OK or that plastics in the ocean will simply disappear. We believe that post-consumer plastics can be a tremendous resource for making energy by burning the plastics. Our industry should produce packaging in such a way that the end of life of the products we make are designed so that they are suitable for burning. Most people don't know that Polypropylene burns cleaner than heating oil and has an energy value equal to propane gas. So, let us stop treating garbage like ... garbage, and let us instead make use of this valuable source of energy.



Market Update

What a year! Although we are not officially in a recession, for a lot of people it certainly felt that way. Three years ago the markets crashed and yet, both 2010 and 2011 saw commodity prices climb, in many cases to levels we have never seen before. How is that possible? There was a low demand due to a slow economy, and yet prices for corn, sugar, coffee, cocoa, oil and plastics resins went through the roof. These are commodities most of our businesses depend on and the wild ride has certainly been more than challenging in 2011.

About 500 million people in Asia have been lifted out of poverty and into the consumption driven middle class over the past four years. This has a huge impact on all sorts of raw materials and this is most likely the main price driver for many commodities. With another 2 billion people in China and India hoping their standard of living will improve as well, we can expect a continuing upward price pressure on many commodities. Oil prices tend to escalate with uncertainties about free and stable oil supply from the Middle East, and this underlines the need for alternative energy sources. As sugar and corn can be (and is) converted to replace gasoline to fuel our cars, this puts pressure on many raw materials important to our industries. Has it thereby come down to driving and starving or parking and eating or are there better alternatives?

As gas prices go up, so does our willingness to replace our gas guzzlers

with diet cars and this has already started impacting our refinery industry. Our country has been net importers of gasoline for many years due to lack of refining capacity, but lately the US has actually become a net exporter of refined oil products, selling gasoline to Mexico and beyond. This trend will most likely continue as Hybrid and electric cars become more popular. We have also seen some very interesting developments of new plastics based on food waste—orange peels, potato peels and corn husks. The latest new plastics we have tested on our lab-line here at Multifilm is PPC (polypropylene carbonate), a plastics material based on carbon dioxide. Yes, it is made from the very greenhouse gas considered the main contributor to the climate change on our planet! Not only are these new plastics green, they actually contribute to improving our environment.

As gas stations will slowly be replaced by power stations, we will most likely see some very interesting changes to our infrastructure and habits. Many years ago, work often took me to northern Scandinavia. All hotels and many lunch stops along the roads had power outlets at the parking lots so you could plug in your car while having lunch or staying overnight. When you got back to your car it was warm inside and so was the engine. All cars had timers so that the heaters kicked in about an hour before you drove off. I am sure we will see similar services along our high-

ways and byways in the future, and this of course will require more electricity throughout our grids.

One excellent energy source to meet the increased demand is garbage and the most powerful component is plastics. Did you know that polypropylene is by and large solid propane? Yes, polypropylene, polyethylene and polyester plastics are all loaded with energy and they all burn cleaner than heating oil. Our industry can actually produce the packaging materials you need with the end-of-life in mind and make the various materials suitable for burning. Of course, it does require a joint effort between the food and packaging industries. If we can agree on staying away from PVC and Polystyrene including Styrofoam, we can produce fuel for our cars coming out of post-consumer packaging that currently tend to end up mostly in landfills. In fact, we at Multifilm are now near zero waste to landfill and we have turned our in-house scrap fully into energy. This is both green and profitable. Isn't that an exciting Twist, turning a problem into a solution?



Olle Mannertorp,
CEO, Partner

Network with us:

