

NORSHIELD IS NORAMPAC'S ANSWER TO A MORE SUSTAINABLE WATER-RESISTANT BOX.



A Wax Free Solution

Norampac's "Box without wax" was recently recognized in the 2009 Packaging Association of Canada's Leadership Awards, receiving Best of Show in the Sustainable Packaging category.

When it comes to sustainable packaging solutions, corrugated is often the most logical choice. Norampac, a division of Cascades Canada Inc., the largest containerboard producer in Canada, recently introduced yet another reason why retailers should choose corrugated over plastic.

At the direction of its President and CEO

Marc-André Dépin, the integrated company developed NorShield, a wax free alternative.

"Cascades is a very green and sustainable company, and this was Marc-André's vision, his goal," says Jean Parent, Vice President of Sales, Marketing and Innovation Packaging. "We believe that we have in the market the most sustainable solution so far. There is no plastic,

nylon, or wax involved." Norampac's "Box without wax" was recently recognized in the 2009 Packaging Association of Canada's Leadership Awards, receiving Best of Show in the Sustainable Packaging category.

"The second largest contaminant of landfill in volume is corrugated wax boxes. Before that it's plastic," Parent says. "Our development efforts were directed to overcome this issue so a sustainable solution could be offered to those users that are sensitive of their environmental imprint."

Why It's Different

Parent emphasizes that NorShield is different from a wax coating. "NorShield represents a solution to wax replacement. It's either a NorShield box made of NorShield paper or NorShield paper by itself. It's Norampac's shield of protection against water or high humidity.

"NorShield is not a chemical, it's a principle of offering a box that can withstand high humidity and still be recyclable and repulpable," he adds. "Typically, when you wax boxes you have to use virgin fibers. NorShield paper is 100% recycled fiber content. It is a very green application because it uses recycled fibers and the box is totally recyclable and repulpable."

NorShield has passed the FBA protocol for repulpability, and the boxes are certified for direct food contact.

The boxes are used primarily for the packaging of vegetables, meats and fish. A water-repellent treatment of the paper is necessary since most of the cooling methods used to cool down the produce generate a lot of moisture.

In some instances, ice water is used in the packing process. Broccoli is usually packed this way. Parent says this represents about 25% of the cooling methods used. "We haven't found a solution for replacing waxed boxes when ice water is used. Cascaded waxed boxes are still the preferred way of packing," he says. "Right now NorShield can efficiently replace 75% of waxed boxes."

"NORSHIELD IS NOT A CHEMICAL, IT'S A PRINCIPLE OF OFFERING A BOX THAT CAN WITHSTAND HIGH HUMIDITY AND STILL BE RECYCLABLE AND REPULPABLE," SAYS JEAN PARENT, VICE PRESIDENT OF SALES, MARKETING AND INNOVATION PACKAGING.



How It's Applied

During the manufacturing process, Norampac applies a water-based acrylic formula directly into the paper with a size.

The treatment is applied at the Mississauga linerboard mill in Ontario. "During the last few operations, we size press the chemical so it penetrates the fiber on each side of the paper, from inside and outside. This is what makes this so unique," Parent says.

The penetration is about 50 to 70 microns on each side of the paper. To provide even greater protection against water for the inside and outside of the box, Norampac will apply an additional bump as a surface treatment. This adds another 5 to 7 microns.

During the printing process, Norampac uses a special water-based ink, which has added chemicals to help dry the ink faster. Solids are the most difficult to print, primarily because of the density and coverage of the ink impeding the drying process.

Machines with dryers make the printing process easier, Parent says.

Cost and Availability

The cost is competitive compared to a traditional wax box. "The price of wax is directly related to the price of gas at the pump. Because the chemicals used in the making of the NorShield paper are not a direct by-product of oil, it is much less sensitive to price fluctuation," Parent says.

As the general population and retailers like Wal-Mart and Loblaws continue to push for sustainable solutions, products like NorShield will gain popularity and market share, Parent says.

"A typical waxed box costs 22 cents to landfill. Switching from a wax to a non-wax and recyclable alternative box will generate recycling revenues, up to 20 cents a box," Parent says.

NorShield boxes are available across Canada and the U.S. Norampac also makes the specialty paper available to U.S. board converters. Some U.S. integrated companies are currently using the process.