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Aveda's New Recycling Stream

By starting its own caps-collection program, Aveda found a new source of recycled plastic for bottle caps.

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The Evolution of a Cap

Aveda has given plastic caps a new destiny thanks to the company's new caps-recycling program.

To celebrate its 30th birthday, Aveda is bringing back an old classic—the first shampoo it ever introduced, in 1978, called Clove Pure Plant. On September 14 of this year, Aveda relaunched the product as a limited edition, called Vintage Clove Shampoo.

While the shampoo is a classic, its packaging is far more advanced than it was in 1978. The bottles' caps are made from recycled polypropylene, bringing levels of sustainability to a whole new realm for Aveda—as well as for the entire beauty industry.

A Major Breakthrough in Sustainability

Vintage Clove Shampoo's packaging is truly unique in its levels of postconsumer recycled (PCR) materials, as well as the source of those materials. The bottle is made from a minimum of 96% PCR high-density polyethylene (HDPE). This is the highest percentage of recycled content attained yet for a colored bottle for a beauty prod-

uct, according to the team at Aveda.

The PCR HDPE source is recycled milk jugs. The remaining 4% HDPE virgin resin is used as a carrier for the resin's colorant. Matrix Packaging (Mississauga, ON, Canada) molds the bottle, and TricorBraun (St. Louis) supplies the bottle.

Technigraph (Winona, MN) decorates the bottle, whose graphic design elements were inspired by those used on the original Clove Pure Plant package. "We chose a color similar to the original bottle color that our loyal customers will remember," says Dean Maune, executive director of Aveda Package Development. "We also refreshed the bottle's graphics so that they would work with all of the random colors of the recycled caps," he adds.

The bottle's dispensing cap is made from 100%-PCR polypropylene (PP) resin—the first Aveda cap to use such a high level of PCR. Because the PCR resin supply is always a mixture of different colors, the color of each batch of caps varies.

Aveda's creative and marketing teams were on board with the idea of the caps not always having a uniform look. "I think the fact that consumers will see the colors change over time reinforces the idea of what we're doing," says Maune.

Producing the caps from 100%-PCR resin didn't pose problems for supplier Seaquist Closures (Mukwonago, WI). "[Seaquist] was able to run the PCR PP material in its existing disc-top molds," explains Maune. "The 100%-PCR material actually ran better on the machinery than a 50/50 blend of PCR and virgin material. We even heard feedback about how the PCR material was helping to self-lubricate the molds," Maune adds.

Collected Caps Become Aveda's Own PCR Source

Finding enough PCR PP material for the bottles' caps was made possible by Aveda's Caps-



Collection Program—the first of its kind in the United States. A story about this program in *CPC Packaging's* July/August issue reported that more than 50,000 pounds of plastic has already been collected since the program began in April of this year. (The United States doesn't have another recycling system in place to collect and recycle loose PP closures. These types of caps end up in landfills, littering beaches, and even migrating to oceans where the material can travel for thousands of miles.)

Part of the PCR PP used for the Vintage Clove Shampoo caps also comes from another source, which Aveda found in 2005. Today, many of the clear closures used on Aveda's shampoo bottles contain up to 25% PCR PP from this stream of material. "At that time, our source for PCR PP was reclaimed security strips that surrounded most CD disc cases, which

The evolution of a cap: recycled caps are ground into resin chips, which are then used to create the 100%-PCR polypropylene caps for Aveda's Vintage Clove shampoo bottle. This is the type of true cradle-to-cradle solution that all companies should strive for.

The United States doesn't have another recycling system to collect and recycle loose PP closures.

were collected from stores after they were no longer functional. When the industry changed the way it packaged and sold the discs, that resource went away," explains John Delfausse, vice president of global package development and chief environmental officer for Estée Lauder Corporate Packaging.

Aveda's Caps-Collection Program is now the company's own sustainable source for PCR PP. "The Caps-Collection Program is one achievement that demonstrates Aveda's commitment to strengthening its position as a sustainable company and an environmental steward. The concept of product stewardship is one that we believe is critical to building a true cradle-to-cradle environment for packaging," says Delfausse. (The cradle-to-cradle, or closed-loop, concept, is discussed in the sidebar at right.)

Leading Efforts to Create a New Recycling Stream for Polypropylene

Running the Caps-Collection Program is still a huge challenge for the team at Aveda. "The collecting, sorting, and processing procedures were all completely new to us. Working with sourcing partners that were up to the challenge helped a great deal," explains Maune.

Right now, caps are being collected from Aveda and Estée Lauder offices; Aveda Experience Centers (its retail stores); Aveda's manufacturing site in Blaine, MN; Estée Lauder's manufacturing site in Melville, NY; and 62 elementary schools.

Closing the Loop

Aveda's Vintage Clove Shampoo package, along with its Caps-Collection Program, exemplifies the concept of cradle-to-cradle, or a closed-loop, manufacturing process.

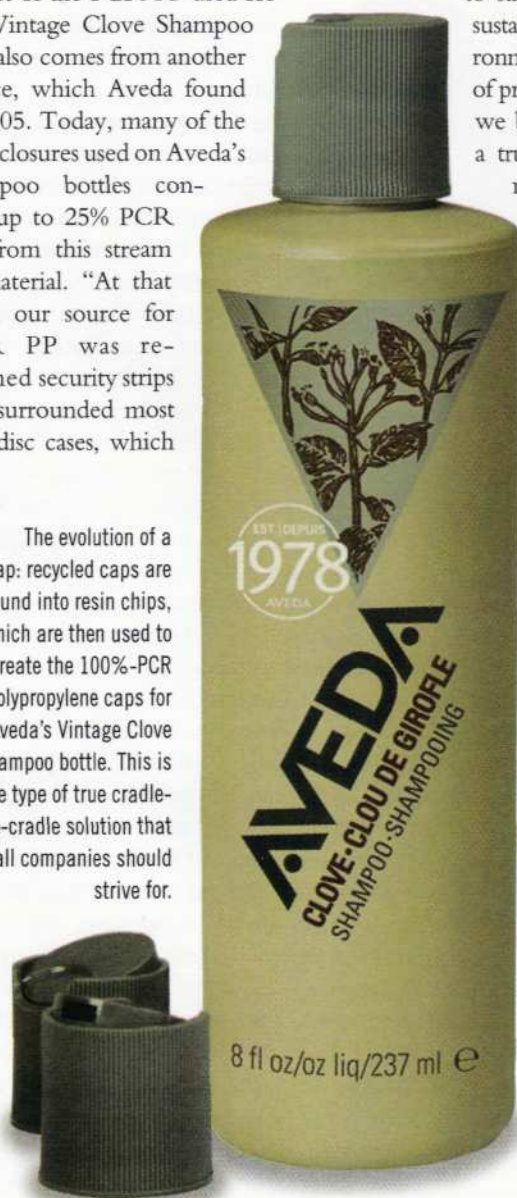
The cradle-to-cradle concept was first spoken about during the 1970s. William McDonough and Michael Braungart popularized the phrase in 2002, when they used it as the name of their book.

Cradle-to-Cradle explains how a package can be designed so that at the end of its useful life, its material becomes used for something new—circulating within a closed-loop industrial cycle instead of being "down-cycled" for lower-grade use.

"We're committed to designing for the environment," says Dean Maune, executive director of Aveda Package Development. "We're always thinking about the next life of every container that we make."

All of the material used to mold the new caps for Aveda's Vintage Clove Shampoo bottle comes from Aveda's Caps-Collection program. Once the shampoo is purchased and used, however, the final phase of the closed-loop cycle depends on the consumer. If consumers recycle the caps and bottles separately, both materials will begin new life cycles. If Aveda's Caps-Collection Program ultimately leads to the creation of a new recycling infrastructure for polypropylene as planned, then there will be a way for every company to have access to postconsumer recycled PP—and to make new caps from old ones.

Maune explains that Aveda's long-term goal is to continue to reuse more packaging materials, while becoming less dependent on virgin materials and nonrenewable resources. "We have a limited amount of materials and resources on this planet. Following the cradle-to-cradle principles ensures that we will continue to have materials for future generations," says Maune.



How Schoolchildren Helped

Aveda's Caps-Collection Program began with just one bowl-full of plastic—and the help of one grade school in New York City. Now, marines on army bases as far away as Afghanistan are collecting caps, and the program has become a major recycling initiative that has collected more than 50,000 pounds of plastic.

It all began in 2005, at Aveda's offices in the SoHo neighborhood of New York City. John Delfausse, vice president of global package development and chief environmental officer for Estée Lauder Corporate Packaging, asked his employees and colleagues to place a small empty wooden bowl on the table in the kitchen. Employees were asked to bring in any types of plastic caps they could find at home, and to keep collecting them.

"After several months, we had enough caps to send to a lab in New Hampshire. The lab would determine whether or not the material could be ground, cleaned, and reprocessed into pellets," Delfausse says.

The trial run was a success. Gray plastic chips were molded from the collected material; however, many more caps were needed to take research to the next level. Andrew Fishkin, an Aveda employee, volunteered to help. Fishkin asked his wife, who was a second grade teacher at Westorchard Elementary School in Chappaqua, NY, to involve her students in the collection efforts.

It wasn't difficult to persuade the second graders to participate.

The fact that plastic ends up on beaches and in oceans, where it causes harm to birds, turtles, and other marine life, was all the information the children needed to hear to commit to the program.

"Within two months, all of the students from that one school were involved and had collected 15,000 caps. They were all super engaged in the project," says Delfausse.

By the end of 2005, five more schools (located in New York, Pennsylvania, and North Carolina) were onboard with the program. Enough caps were being sent in to prove that a collection program would be a success.

Armed with this knowledge, Aveda's packaging team began setting up a process for collecting and reworking the material. The goal was to collect enough polypropylene (PP) to mold new caps that would be made from 100%—postconsumer recycled (PCR) PP.

Aveda's team members met each new challenge that arose by handling issues one at a time. "Finding a recycler that could rework the material was key," says Delfausse says. "KW Plastics, which was already a partner with us for recycled high-density polyethylene (HDPE), was the perfect

choice. They were already making paint containers from recycled bottle cap material," he adds.

Another issue was figuring out how to consolidate the material for shipment, as well as handling the cost of shipments. "These were big questions," says Maune. "Right now, we're covering the UPS charges for any school that wants to participate," he adds.

Aveda's Caps-Collection program officially launched in April 2008. Aveda retail stores around the country joined the mission by setting up collection centers for its customers and by recruiting local schools in the area to help. By June, 62 schools were participating. One Chicago school alone sent in 22,000 caps.

News of the program began to quickly travel across the globe. In April, an article appeared in *Shape* magazine, directing readers to Aveda's Web site for more information about where to send caps.

Soon after the story was published, letters and e-mails from around the world began pouring in, to Aveda's offices and its Web site.

"The *Shape* article was read by marines in Afghanistan and also a Girl Scout troop in Japan. We received e-mails and letters from them saying that they wanted to help, and they began collecting caps," says Dean Maune, executive director of Aveda Package Development. This fall, Aveda plans to expand the program with the help of its salon and spa partners.

Aveda's Caps-Collection Pro-

gram has grown into a new recycling initiative that has collected more than 50,000 pounds of plastic. The program has become Aveda's own sustainable source of PCR PP—made possible because of the involvement of grade schools and the children's intense dedication. Enough materials are being collected to create new dispensing caps that are currently being used on Aveda's Vintage Clove Shampoo bottle.

Aveda has received a lot of positive feedback about the program from the schools, teachers, children, and parents, according to Maune. "One reason why the program has been such a phenomenon with younger schoolchildren is because they can touch, feel, and see the caps," Maune says. "It has real meaning to them because they can actually count them and keep track of how many they're bringing in. The best part about it is that we're helping to educate the kids about recycling, and that feels great."

A few of Aveda's packaging team members, including Delfausse, recently visited the children from that first second-grade class. "Those kids are in the fifth grade now and are still excited about their ability to create positive change in the world," says Delfausse.



Caps for Aveda's collection program are shipped by the box-full to the company's headquarters in Blaine, MN. Elementary schools, Girl Scouts, and U.S. marines are among those sending caps to Aveda.



Additionally, a number of Aveda salons and spas will join the program later this year. The collected caps are sent to one of three consolidation sites: ACA Waste Services in Babylon, NY; Aveda's headquarters in Blaine; or

ing it into pellets. The pellets are sent to Seaquist Closures to be injection molded into new caps.

Managing the processing procedure is not a responsibility that Aveda wants to continue indefinitely. "Aveda is not in

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Aveda's West Coast distribution facility in California. An initial sorting process at these locations weeds out non-recyclable material.

Next, the recyclable caps are shipped by the truckload to KW Plastics in Troy, AL. The recycler sorts, cleans, and processes the material, convert-

the business of collecting, sorting, and processing recycled materials. There are groups more capable of managing this process long-term," says Maune. He adds, however, that Aveda does feel an obligation to find additional uses for the recycled cap materials.

Once the network is set up for re-

cycling caps, Aveda hopes to turn the program over to local recyclers across the nation. "We are reaching out to local recycling centers that are currently collecting mixed materials and sorting them. We're simply looking to add another valuable material to a recycler's existing collection stream," Maune says.

"Recycled polypropylene is valuable to the packaging industry, and if we can just get the material sorted, it has a much higher value as an injection-grade material," Maune says. Aveda's efforts will no doubt lead to positive changes in recycling and material collection that will have a lasting effect on the entire industry. 



Visit cpcpkg.com to read about how Aveda's Caps-Collection Program began with a desire to combat ocean pollution and save marine life. It all started with Michael Braungart, co-author of the book *Cradle-to-Cradle*, who initially approached Aveda, asking what the company could do to help ensure more plastic doesn't end up polluting the world's oceans.