

New PET recycling plant opens in Mexico

By [Mike Verespej](#) | PLASTICS NEWS STAFF

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TOLUCA, MEXICO (April 22, 3:50 p.m. ET) -- A new \$35 million bottle-to-bottle PET recycling plant in Toluca, Mexico, that is holding its grand opening today, will produce more than 48 million pounds of food-grade resin annually, largely for use by global soft drink and water bottlers operating in Mexico.

The opening of the plant importantly also sets in motion a social responsibility effort by PetStar to reduce the amount of school-age children collecting PET from landfills and getting them to return to or begin classroom education.

Jamie Camara, director general for PetStar SA de CV, said in a phone interview April 17 that the wash line began operating in January and the extrusion line began operating in March.

"The wash line is now at 80 percent capacity and we expect it to be at full capacity in 60 days," said Camara. "We expect both lines to be at full capacity sometime in June."

In addition, he said that the plant, located on 250,000 square feet, has 150,000 square feet of manufacturing space and was built for "double the capacity we have now."

"We will be spending another \$15 million" to add a second wash line and additional extrusion equipment to increase capacity to 88 million pounds annually in less than two years, Camara said. "Our target is to be ready in January 2011," he said.

PetStar is part of Houston-based recycling services company Avangard Innovative Ltd. Promotora Ambiental S.A.B. de C.V., a Mexican environmental services company with operations in 42 Mexican cities, also is a partner in the project.

PetStar's wholly owned subsidiary, Avangard Mexico SA de CV, will supply the plant with raw material.

Avangard Mexico has been collecting PET bottles in that country since 1995, selling about 15 percent of that volume to Mexico and the rest to the U.S., India and China.

"We are integrating and going to use more 90 percent of the volume we process ourselves to add value and produce a solid state recycling PET resin that we will largely sell domestically," Camara said. "Our aim is to do closed-loop recycling in Mexico, turning PET bottles back into food-grade resin that we can sell back to soft drink and water bottlers to make new bottles."

He said bottlers have said that they plan to make bottles with a range of 10-25 recycled content, using the plant's recycled resin.

Camara said the plant, which took 14 months to build and open, will reprocess roughly 64 million pounds of recycled PET annually — roughly the equivalent of 1 billion bottles — to produce 48 million pounds of solid-state PET resin. The plant will not reprocess colored PET.

The plant will use a wash line from Amut North America Inc. in Woodbridge, Ontario, extrusion equipment from the Swiss firm, Buhler AG, and operate 24/7 on a rotating four-shift system with a 70-person workforce that includes administrative personnel.

By contrast, the collection process in Mexico is very “labor-intensive”, Camara said, with some 700 employees — both drivers, as well as workers who sort material on conveyor belts — at 14 collection plants.

Camara said the PetStar solid-state recycled resin will be the same shape, size of virgin resin and have the same viscosity “so that blends as smoothly as possible. That was the biggest technical challenge we faced. But we have achieved that successfully,” he said.

Clearly, though, the largest operating challenge continues to be market conditions and the unknown question of “how the price of virgin PET behave in the future,” Camara said.

“If virgin PET is 55-65 cents per pound [as it is now], we are OK. If it is under 55 cents per pound, we suffer. That is the big unknown in this business.”

Long-term, Camara said the company’s greatest challenge will be working with others to restructure the collection system. The company supports a plan to change the collection environment in Mexico where entire families, including school-age children ages 4-14, collect bottles from landfills, so those children can instead be in classrooms receiving an education.

In Mexico, Camara explained, it is common for families to bring their children to landfills to help them pick out PET bottles and other materials of value because the families need that additional income from the bottles their children collect.

“We are undertaking a social responsibility program to improve the conditions of the hand pickers and to lower or eradicate child labor at landfills by providing them education,” Camara said.

“We are going to work with parents and educators and children to get these children into schools,” said Camara. “If a child is going to school, we will support that by reimbursing the families for that missing income.”

Camara said the first pilot program will start in May in Chimalhuacan, outside Mexico City, and provide education for 40-50 children aged 4-12. The second one, in Tijuana, which will get 80 more children into schools, is expected to start up in September.

The project is being underwritten by International Finance Corp., a unit of World Bank.

“We also need to improve the labor conditions of hand pickers by moving from a hand-picking system to a sorting infrastructure that incorporates the hand pickers — not eradicates them,” Camara said.

“We need to develop an infrastructure of [materials recovery facilities] to make collection more efficient and, at the same time, incorporate the hand pickers into the industry,” he said. “So it is an interesting challenge.

“Short-term, we have enough material,” Camara said. “But with the increasing commitments by companies to sustainability and recycled content, long-term, the market will be larger than our ability to collect material,” he said.

“Our limitations to grow will be on the collection side and how fast we develop an efficient infrastructure for that,” he said. “We have to find a way to make collection much more efficient.”