

**New York State
Environmental Investment Program
Research Project Summary
Solid Surface Acrylics, LLC**

Project Background

Solid Surface Acrylics, LLC (SSA) of North Tonawanda, has manufactured high quality hospitality tabletops from predominantly recycled, acrylic materials since 1993. The growth of the business was cut short with the negative impact of the September 11, 2001 attacks to the hospitality industry. As a result, SSA management began to focus on other product lines which could be leveraged off the existing recycling business and technology.

Project Description

This project focused on the development of three new products, which required scaling up from a bench scale to a production scale to determine their quality, processability and marketability. The three new products were: 1) “feedstock sheets,” which involved the processing of large quantities of solid surface by-products back into solid sheets to be sold back to the manufacturer as a raw material; 2) park bench slats and shipping containers, which involved taking a “flush waste” (wet solids created by cleaning a solid surface mixing operation) and using it as an ingredient in a mix for making an inexpensive solid surface material; and 3) granules for use in epoxy floors, which called for using the existing solid surface waste stream as an ingredient in making colored granules.

Project Results

This project was instrumental in developing the recycling technology and a process to determine the market potential, manufacturing costs and performance of all three products.

The first objective, to develop feedstock sheets, was successful; however the manufacturer that the feedstock sheets were to be sold to unexpectedly added new capacity at its own facility, eliminating the need for additional feedstock material. Fortunately, the technology is transferable and is being used for making less expensive

granules for other applications and is showing promise, although not at the expected growth rate.

The second objective, to manufacture shipping containers and park bench slats, required developing the technology to process the flush waste (to be purchased from another company) into a usable product. The product chemistry and processes were developed and parts were made and tested. At the time, the price of resin was increasing dramatically and the company with the flush waste chose to recover the resin for themselves. However, a new table line was developed from this technology and over 1,000 tops were sold in the first 4 months of production.

The third objective, the development and manufacture of the epoxy flooring granules, was successful. However the flooring installers who tried and liked the product were unwilling to use it in installations, as SSA offered a component (granules) and not a “complete system” with a warranty. With the technology and manufacturing capability developed, SSA has been approached by a flooring manufacturer interested in supplying a system, utilizing the granules made from recycled materials.

It is important to note that while SSA did not fully realize their original product goals because of market conditions and external variables, they were able to capitalize on the recycling technologies developed and the learned process capabilities to meet their long-term business goals of expanding the product line to grow the recycling business. Scaling up from a bench scale operation to a production scale allowed SSA to test the full size parts in order to respond quickly to potential customer requests, which in the case of all three objectives, has helped to successfully increase sales.

Contractor:	Solid Surface Acrylics, LLC	NYS EIP Investment:	\$194,593
County:	Niagara County	Contractor Match:	\$67,450
ESD Region	Western	Total:	\$262,043
ESD Contact:	518/292-5340	Completion Date:	January, 2007