



Reactive Surfaces

Situation

Reactive Surfaces[®], with laboratory and manufacturing facilities in the Accelerator in Hattiesburg, MS, has created non-toxic and eco-friendly paints and coatings that give functionality to surfaces. RSL develops enzyme-based and peptide-based additives for self-cleaning surfaces, biocidal surfaces, mold-inhibiting surfaces, deodorizing surfaces, textiles with reactive coatings, self-healing coatings, and self-decontaminating coatings for military and first-responder equipment. The enzyme-based additive, DeGreez[™], that degreases surfaces exposed to fat and grease from vegetable and animal oils was successfully used to coat electronic screen protectors. RSL is marketing and selling this technology as eRACE[®]. RSL had an opportunity to advertise the screen protectors on As Seen On TV, and the need for inventory became apparent. Reactive Surfaces wanted to garner a piece of the large screen protector market, estimated to be \$200 million per year. Thus, RSL needed rapid assistance with their scale-up process.

Solution

The Mississippi Polymer Institute was a great fit for Reactive Surfaces' immediate need for production, as MPI has experience with scale-up manufacturing. Additionally, MPI had already assisted Reactive Surfaces on another project, a GLP (Good Laboratory Practice) study of certain biocidal products. Inherently, the two groups were very familiar with and comfortable working together. Cecelia Butts of MPI had prior experience with polymer coating and spray applications; her expertise was utilized to increase manufacturing speed.

Results

With the help of Mississippi Polymer Institute, Reactive Surfaces now has stockpiled eRACE screen protectors and is prepared and ready for nationwide distribution via TV and online advertising. In fact, with MPI's help, RSL built thousands of such screens and are now well-positioned to hand over the process to large-scale toll manufacturers. RSL will be running a pilot-scale production run by the end of the summer. If successful, Reactive Surfaces will be able to turn out hundreds of thousands of the tempered glass screens coated with eRACE per month. RSL intends to incorporate its antimicrobial additives into these same coatings to provide self-sterilizing protective covers for the health industry soon and will base this advance on the work MPI assisted in.

Testimonial

"The synergy between Reactive Surfaces and MPI has again been demonstrated with the launch of our eRACE screen protectors," says McDaniel. "When we decided to begin the manufacturing processes at the Accelerator, we engaged Ty Posey of MPI to set up the manufacturing lines and stations, as well as the safety and QA/QC procedures." McDaniel continued, "We already had a great deal of confidence in the MPI staff from their excellent GLP studies of our ProteCoat[™] biocides, and their work significantly contributed to our present success before the United States EPA. So when we were ready to manufacture, we did not think twice about getting actual manufacturing expertise from MPI. CeCe Butts was engaged in the process, and we were not disappointed. Without MPI's help, we would have had to go outside the facility to recruit talent of the same caliber."

C. Steven McDaniel,
CEO of Reactive Surfaces Ltd.