CASE STUDY

INHANCE TECHNOLOGIES: A SOLUTION FOR EVERY CHALLENGE

Transforming Surfaces for Manufacturing Efficiency

Challenge: A manufacturer of dropper bottle squeeze bulbs wanted to reduce the surface-tackiness of their rubber bulbs; friction produced by the bulbs was causing manufacturing equipment to jam. Solving the problem required a customized solution that led to new levels of efficiency for the customer’s manufacturing process.

“...WE ARE DEDICATED TO FINDING SOLUTIONS TO OUR CUSTOMERS’ PROBLEMS....WE ENJOY FINDING THE BEST WAY TO MEET CHALLENGES”

CHALLENGE

A manufacturing company contacted Inhance Technologies to investigate a potential solution to their problem: their dropper bulbs were too “tacky” for their automated manufacturing. Clearly the Fluoro-Seal process could reduce the issue, but there was a complication -- the light brown, natural rubber bulbs didn’t respond well to the traditional process. Unlike all other elastomers, all attempts to solve the problem caused unacceptable discoloration of the parts.

PROCESS / COLLABORATION

Inhance’s chemists got involved to help solve this problem. They approached the predicament by studying the chemical reactions involved in this discoloration. Results from this study suggested that a new treatment chemistry and process might eliminate discoloration. The customized chemistry created much less color-causing structures on the surface. This treatment was carried out utilizing a new continuous process.

RESULT

Using the continuous process and customized chemistry on natural rubber was a total success. The customer was pleased because they can now efficiently produce dropper bulbs that meet the cost and performance demands of their customer base. “We are dedicated to finding solutions to our customers’ problems, we enjoy finding the best way to meet challenges,” said Prakash, Vice President, Technology at Inhance Technologies. “
KEY BENEFITS

• Using the new continuous treatment process and specialized chemistry on natural rubber prevent discoloration of parts.
• Manufacturer could efficiently produce dropper bulbs that meet cost and performance demands of their customer base.

APPLICATIONS

• HNBR rubber for increased lubricity
• PP and PE containers for printably
• Adhesion of coatings, inks and adhesives to PP and PE
• Gas Tanks for hydro-graphic printing
• Windshield wipers
• Gaskets, o-rings, seals
• Applicators, wheels, rollers
• Packaging
• Filter media, films and fabrics, webs and fibers
• Three-dimensional complex parts
• Continuous films

Enhance Technologies solutions can be applied in a number of industries to improve product performance and sustainability