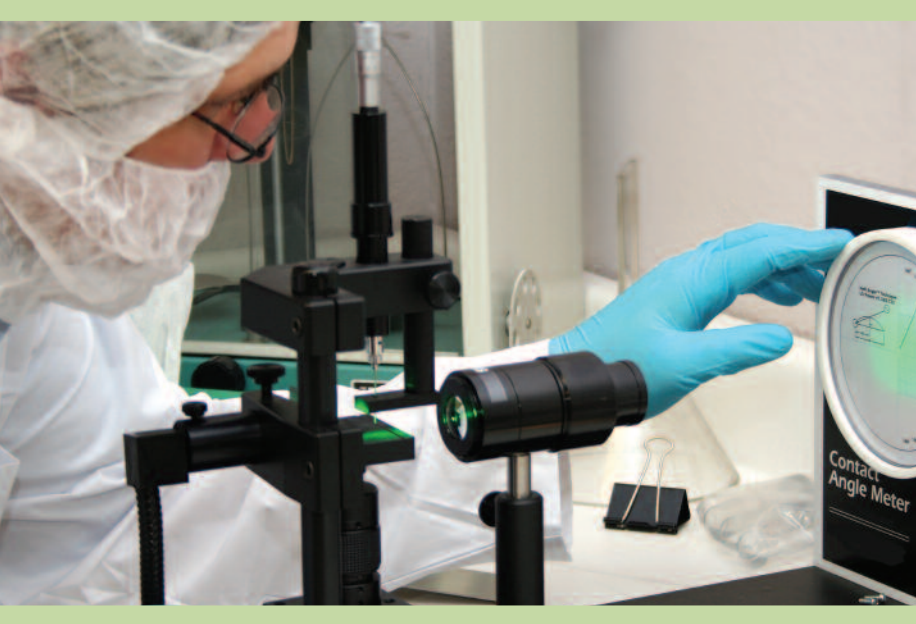


Surface Modification: Enhancing Plastics and Preserving the Environment

■ A partnership with TriStar gives you a competitive edge.



The need to modify surface characteristics of materials is growing rapidly for many companies in the healthcare industry.

Medical device manufacturers, biotechnology, and diagnostic companies all have a need to better formulate their products to serve their client hospitals and patients. And along with this manufacturing need, comes the desire to do so in a manner that respects our natural environment.

The Challenge

Several medical diagnostic companies went in search of a better way to prepare the surface of their plastic components for use in scientific applications. The goal? To provide better treatment options to the medical community, while enhancing patient care, and potentially improving patient outcomes. But how to do so through a “green” process that would help preserve and protect nature? The engineers at TriStar’s Surface Modification Division (SMD) were up to the challenge.

The Results

The modification of plastic has many benefits, including the ability to improve surface adhesion, micro-clean, functionalize, and produce biocompatibility. The need is especially acute in the healthcare sector, where sterilization is of chief concern, and infection is always a possibility. Through TriStar’s plasma technology, SMD has changed the surface tension of plastic materials used in surgery. Now PEEK and PVC have improved molecular adhesion, and can better accept short and long term release medications. This allows for better treatment options throughout surgery and subsequent recovery.

An added bonus to TriStar’s plasma technology is the ‘green’ factor—it uses no damaging solvents. In fact, the only industrial by-product is non-toxic ventilation. This not only enhances patient outcomes, but also helps to preserve our natural environment.

Need help determining the right bearing for your specific application?

Visit www.tstar.com/machinedesign and ask our experts!

Bearings For Every Application!

Let us be your engineering expert! Visit our web site to

- Review our material database
- Ask specific questions about your application

Hundreds of bearings to choose from! These are just three of our most popular lines.



Composite Bearings

- Non-lubricated, High-load
- Variety of climates and operating environments
- Long wear and extended operating life
- Replacement for steel and bronze



Ultracomp®

- High-load, low-speed applications
- Exceptional resistance to vibration and impact
- Compressive strength of up to 54,000 psi
- Fabricate to your specifications



TriSteel™

- Metal backed, self lubricating
- Good for the most rigorous requirements
- Withstands high loads, high speeds and adverse environments



Engineering | Custom Fabrication | Manufacturing

TriStar



Engineered Plastic Solutions™

tstar.com



1.800.874.7827

The Advantage is closer than you think. Call us today and give yourself a competitive edge.

©2008 Ultracomp and TriSteel are registered trademarks of TriStar Plastics Corp. All rights reserved.