



TriboShield™
**THE NEXT GENERATION OF
TRIBOLOGICAL SURFACE COATINGS**

INTRODUCTION

Not All Coatings Are Created Equal



Equipment manufacturers are facing greater demand to deliver faster than ever reliable parts that meet higher performance expectations. Advances in polymer engineering during the past decade mean that **tribo-coatings** can now offer a means to achieve a product's goals, **helping to improve performance** through reduced friction, increased wear life, reduced system noise and improved corrosion resistance. And it's possible to do all this while also **reducing system costs**—especially if GGB engineers are involved early in the design process.

Many custom coaters outsource chemical formulations to material suppliers, and few have the **application engineering and tribological expertise of GGB**. Partnering with GGB can help streamline the entire design and production process, while providing the confidence that the solution has been **optimized for your specific needs**.

A SOLUTION AS UNIQUE AS YOUR PRODUCT

At GGB, through our extensive progress in polymer engineering—both in materials and processing—we offer **complete tribo-coating services, including tribological and design expertise, custom formulation and coating application**. This lets you work with a single source to ensure a better overall product that meets high performance demands.

THINK BEYOND THE SURFACE

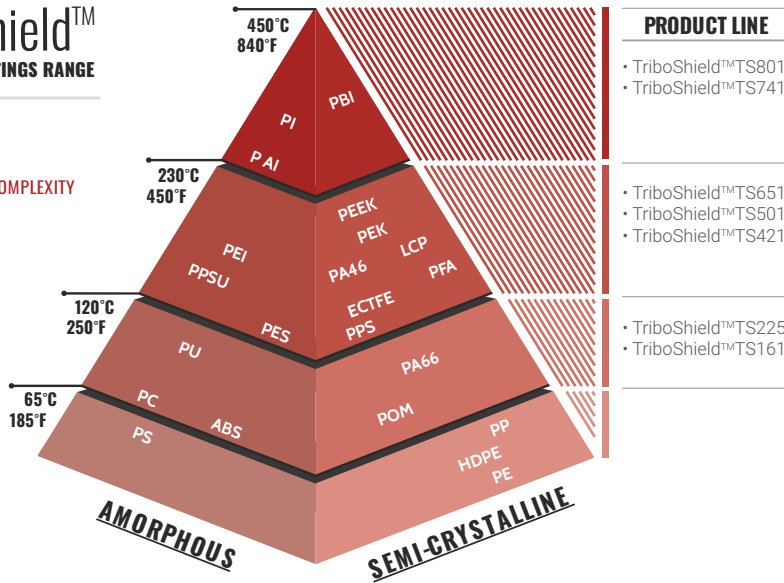
Our specially formulated **TriboShield™** polymer coatings outperform other coating options in applications ranging from automotive to aerospace to industrial equipment. And because **they can be applied to nearly any surface, regardless of shape or material**, their potential is almost endless.

TAILORED TO YOUR NEEDS

GGB's in-house formulation capabilities allow surface coatings to be customized to your specific needs, should our standard range not provide 100% satisfaction. By partnering with GGB, our engineering team can help optimize your product before it reaches production. And we'll help you determine the right tribological solution for your performance requirements.



- PERFORMANCE
- PROCESSING COMPLEXITY
- COST



POLYMER PERFORMANCE

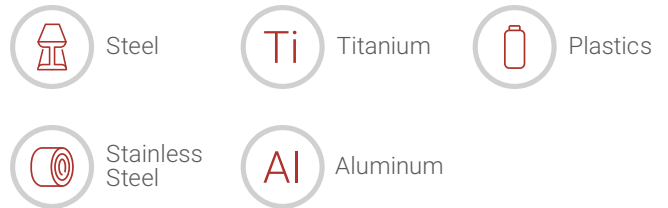
Our new **TriboShield™** product line includes seven standard formulations that cover the full spectrum of mechanical, thermal and chemical capabilities offered by today's polymer materials.



TRIBOSHIELD™ JUST MAKES SENSE

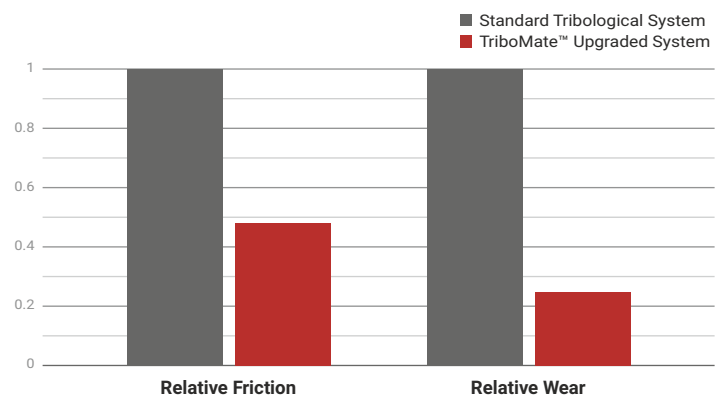
- **Simple design means fewer parts and greater reliability**
Polymer coatings can replace traditional bearings in certain applications, enabling compact and light-weight designs and simpler assembly—all with reduced lead times and inventory costs.
- **Better chemical and corrosion protection**
There is no need to use exotic corrosion-resistant alloys because our coating technology does it all, while also delivering total system cost savings.
- **Reduced reliance on third-party oils or greases**
The self-lubricious nature of TriboShield™ polymer coatings helps reduce reliance on the need for additional lubrication in machine parts. And in some cases, it can even eliminate it.
- **Customizable**
GGB's surface engineering and formulation expertise allows coatings to be tailored to the unique needs of your application.

- **Reduce surface requirements**
With TriboShield™ polymer coatings, there is no need for fine machining of the surface to be coated—a surface roughness of up to 1.6 µm Ra is acceptable. Contrary to current convention, TriboShield™ coatings can be used on the counter-surface in contact with a bearing, thereby eliminating the need for fine polishing and expensive heat treatments.
- **Apply to nearly any substrate:**



PERFECT PERFORMING BY PAIRING WITH TRIBOMATE™

Every tribological system has two surfaces, and both must be considered to optimize performance. GGB's **TriboMate™** paired coatings are specifically designed to work with and enhance the performance of GGB products—bearings and TriboShield™ coatings. TriboMate™ coatings have been proven to reduce friction, increase wear life and performance stability.



THE TRIBOLOGICAL SOLUTION PROVIDER FOR INDUSTRIAL
PROGRESS, REGARDLESS OF SHAPE OR MATERIAL



GGB NORTH AMERICA

700 Mid Atlantic Parkway | Thorofare, New Jersey, 08086 USA

Tel: +1-856-848-3200 | Fax: + 1-856-848-5115

email: usa@ggbearings.com | www.ggbearings.com



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