

Rulon® J Makes it Possible to Strap In and Feel The “G’s”



In any application where safety is of paramount importance, there are certain components you don't casually source materials for – only specialty high-performance materials will do. Rulon J is just such a material, and a roller coaster seat belt is just such an application!

Our client, a major amusement park ride designer, was having problems with the seat belt retractors sticking on one of their “extreme” coaster rides and approached us for help.

After a review of the original specs and a fresh look at the operating conditions we determined that the cause was from galling between the oil-impregnated bronze bushing and the steel pin used to hold the retractor spool assembly in place.

■ A partnership with TriStar gives you a competitive edge.



Rulon® J

The Solution - Low-Friction Rulon J

We then designed a new flange bearing as a direct retrofit for the bronze bushing. Our solution was to go with one of the lowest friction materials available – [Rulon J](#).

One of the original Rulon compounds, Rulon J is a reinforced material that combines the best in wear and friction properties with superior value.

Initially, there was concern that the Rulon J might be too soft for the impact of the retractor pin under load, but comprehensive testing proved otherwise. In fact, the coefficient of friction actually improved as cycle testing continued.

No lubrication, no galling, low friction and long life. With Rulon J in this critical component, there are sure to be many twisting, turning, and looping thrills in store for this coaster!

Do you have a difficult bearing failure challenge and need a material recommendation? [Reach out to our engineers](#), and we'll take a look or [download our white paper](#) to learn more about the full Rulon product line.

We're ready to put our engineering expertise to work for you from prototype to production.

Engineering | Custom Fabrication | Manufacturing



CJ Composite

- Self-Lubricating
- Low weight | High Strength
- Chemical Resistance
- Direct replacement for Bronze



Ultracomp[®]

- Self-Lubricating
- High Load | Low Speed
- 54,400 PSI Compressive Strength
- Exceptional Resistance to Vibration and Impact



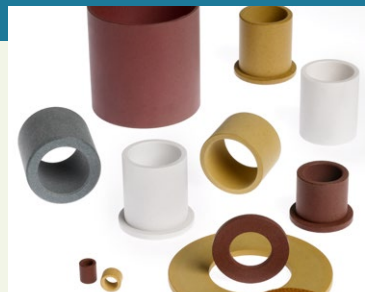
TriSteel[™]

- Self-Lubricating
- High Load | High Speed
- Metal Backed Bearing System
- 100% Lead Free



Rulon[®]

- Self-Lubricating
- Low weight | High Strength
- Low Coefficient of Friction
- Chemically Resistant



Enhanced Materials Division

- Plasma Surface Treatment
- Specialized Primers & Coatings
- Material ID & Selection
- Process Engineering | Analysis & Testing



TriStar



Engineered Plastic Solutions[™]

tstar.com



1.800.874.7827

©TriStar Plastics Corp. All rights reserved. Ultracomp is a registered trademark and TriSteel is a trademark of TriStar Plastics Corp. Rulon is a registered trademark of Saint-Gobain Performance Plastics Corporation.