

# Rulon® 1439 Solves Turbine Flow Meter Bearing Issue

■ A partnership with TriStar gives you a competitive edge.



*TriStar Plastics recently worked with a customer who manufactures several styles of turbine flow meters to solve a bearing problem. On this product, the meter body and shaft support are made from 316L stainless steel, and they were using sleeve bearings made from a special grade of tungsten carbide.*

*TriStar engineers looked at the operating conditions and potential issues from using a polymer sleeve bearing instead of the tungsten carbide and found a couple of options.*

*Since these are sanitary applications potentially requiring [FDA, 3A and NSF clearance](#), we looked at two Rulon materials - Rulon 641 and [Rulon 1439](#).*

## **Self-Lubricating, Low Friction, Runs Wet – Rulon 1439 Proved to Be the Best Fit**

While both materials meet the regulatory requirements, can run wet against 316L stainless, will not absorb moisture, and both will cover a broad range of operating pressures, speeds and temperatures – we selected Rulon 1439 because it has the edge running in wet environments.

In fact, Rulon 1439 has proven itself to be a long wearing bearing and seal material in many “wetted” environments on [sanitary pumps](#), valves, pipe seals and flow meters.

Rulon 1439 is self-lubricating and with its extremely low friction, it eliminates stick slip in those unplanned operating situations that can cause shaft to sleeve bearing interference.

## **The Problem was Solved with Additional Benefits Realized**

The customer reported additional benefits with the new bearings, including quieter operation, more uniform flow rates, and the elimination of potential counter-face debris generation into the product.

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<sup>®</sup>

- Self-Lubricating
- High Load | Low Speed
- High Compressive Strength
- Vibration & Impact Resistance



### TriSteel<sup>™</sup>

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



### Rulon<sup>®</sup>

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



### Meldin<sup>®</sup>

- High Performance Materials
- High Temp Dimensional Stability
- Chemical Resistance
- Withstands Thermal Shocks



### Enhanced Materials

- Plasma Surface Treatment
- Filtration Membranes
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- Material ID & Selection



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