

FDA-Cleared Rulon® 641 Improves Process Analytics Valves

■ A partnership with
TriStar gives you a
competitive edge.



Pharma Flush Bottom Valve

A longtime TriStar customer that makes specialized valves used by pharmaceutical companies for process analytics approached our engineers with a unique problem involving one of their designs.

The part is a low-to-medium pressure seat ring which must maintain a 100% leak free seal. To accomplish this the ring must be “soft” but not allow cold flow [gradual deformation of the ring under the influence of mechanical stress]. The media could be both liquid or powder products and a key concern was the potential for crystallization in the valve.

Additionally, the seal ring must have FDA clearance and USP Class VI approval, be non-reactive to CIP [Clean-in-Place] solutions used for sanitation, be fire safe, and be thermally and mechanically stable.

Based on our Extensive Rulon Experience Rulon 641 was the Obvious Choice

After considering several options, including some traditional (and more rigid) valve seat materials, TriStar engineers recommended [Rulon 641](#). It met virtually all the requirements and we were confident it would be an effective solution.

Key Benefits of Rulon 641 in This Application Include:

- Compatible with mild steel, 303/316 stainless steel mating surfaces
- Unaffected by all common acids, bases and solvents
- PV rating of 10,000
- Wide temperature range [-400°F to +550°F]

After several months of testing in different conditions, the customer approved the material and has since redesigned several valves using Rulon 641 in place of the original virgin PTFE seals.

The customer estimates that this change will result in 4-5 times longer service compared to the old designs with significant cost savings.