

## SMART SEALING™ FOR SEMICONDUCTOR APPLICATIONS

# SMART SEALING™

Sealing products - our semiconductor-grade, elastomeric seals are the most high-tech sealing solutions on the global market

Materials science - we make seals from the most advanced compounds in the world

Application support - we don't just ship products to you, we help you to optimize their use

Reliability - our seals enable you to run your process reliably for longer time before maintenance

Technological innovation - we're developing tomorrow's sealing solutions today



### SMART SEALING SOLUTIONS

Applied Seals SMART Sealing™ delivers custom engineered solutions for your most demanding applications. Our proprietary next-generation FEA analysis minimizes the surface exposure to heat and chemical environments which significantly extends the lifetime of your seals. Our world-class engineering team will also analyze strain and stress points for seals in your particular application and recommend compounds and custom geometries to maximize your seal's integrity, lifetime and overall performance.

### FEATURES + BENEFITS

- Excellent performance in high temperature applications
- Excellent plasma resistance
- Outstanding physical properties
- Low contaminants
- Withstands higher sealing loads
- Impervious to harsh chemical environments
- Stable throughout PM cycles resulting in greater productivity

Optimized seal solutions achieved using:

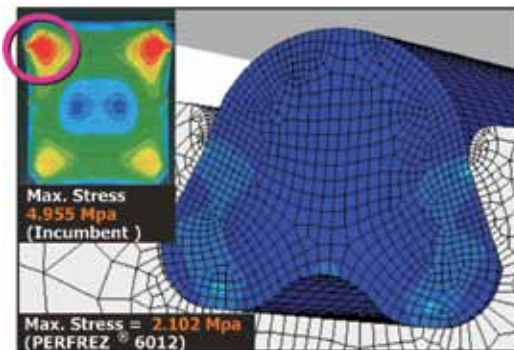
- :: Seal failure product performance analysis
- :: FEA Finite Element Analysis
- :: Innovative seal design

### SEAL OPTIMIZATION STUDY: NEXT-GENERATION GATE VALVE DOOR

Our world-class engineers developed custom geometries to reduce the plasma strike surface of the seal and significantly reduced particale generation.

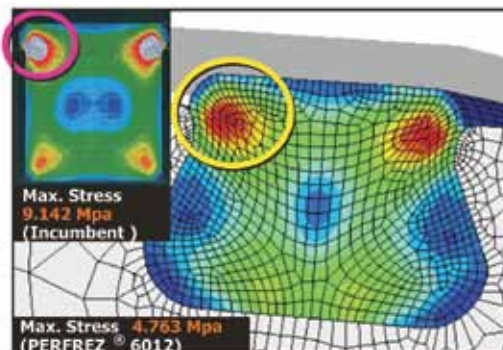
### FINITE ELEMENT ANALYSIS (FEA)

Before Interference



Incumbent vs. PERFREZ® 6012

After Interference

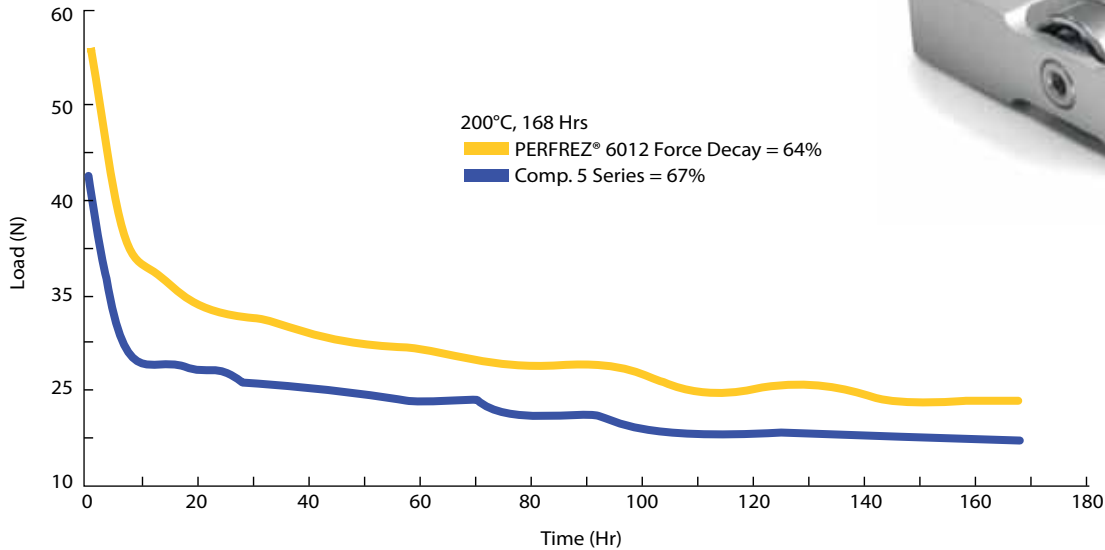


Incumbent vs. PERFREZ® 6012

## SMART SEALING™ FOR SEMICONDUCTOR APPLICATIONS

### ASTM D6147 FORCE RETENTION DECAY TEST

Our next-generation engineering optimization technologies are proven to significantly extend the lifetime of your seals.



### APPLIED SEALS SPECIALTY COMPOUND PERFREZ® 6040:

Applied Seals specialty compound 6040 is highly engineered for specific processes requiring ultra high purity and a non-filled material. This material is low in metallic content and exhibits only insignificant particle generation, even in the harshest of processing environments.

