Garlock

GYLON® Style 3545

Case Study: Semiconductor Manufacturing

Industry
Semiconductor

Customer
A major semiconductor manufacturer.

Background
The customer utilized expanded PTFE gaskets for their exhaust tool hookup applications. This application involves a mix of chemicals, byproducts, and exhaust fumes.

The flanges in this application are PTFE-coated stainless steel ducting, carbon steel, stainless steel, FRP, and CPVC. Due to the low-load nature of the majority of these flanges, a soft, compressible gasket is required.

Challenges faced
Fluid permeating through the body of the ePTFE gaskets was commonplace. Leaks frequently occurred in the manufacturer's low-load flange applications, and a better sealing solution was needed.

Operating Conditions
1. Temperature: 65°C (150°F)
2. Application: Flange - Non-metallic. Exhaust Tool Hookup. PTFE line systems, carbon steel, stainless steel, FRP and CPVC piping
3. Media: Hydrochloric Acid and Sulfuric Acid, 10-75%, 260°C (500°F) and below
4. Pressure: 1 bar (15 psi)

Solution and Benefits
The manufacturer replaced the ePTFE gaskets with Garlock GYLON® 3545. Since implementing this solution, the manufacturer has had zero issues with leaks in this application. While GYLON® 3545 is similar in feel and compressibility to ePTFE gaskets, its microcellular construction and rigid PTFE center core prevent permeation through the body of the gasket.
Thanks to GYLON® 3545, the semiconductor manufacturer eliminated leaks, improved safety and reliability, and reduced maintenance costs.

For more information, please visit:
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