

# Case Study: GYLON EPIX® 3504 Gas Manufacturer



## INDUSTRY

Chemical

## CUSTOMER

Manufacturer of industrial grade nitrogen gas

## BACKGROUND

The entire facility is equipped with stainless steel piping and fasteners. The fasteners are low yield strength stainless steel. During the process, occasional thermal cycling from cryogenic to ambient temperatures is needed.

## CHALLENGES FACED

The filled PTFE sheet gaskets from a variety of manufacturers were experiencing loss of compressive stress resulting in leaks to due gasket creep. The cryogenic environment and thermal cycling caused any gasket that was tested to leak. Live loading the flange assemblies was a common practice to facilitate longer seal life. Live loading is used to help maintain the compressive load on the gasket through the use of spring washers.

## OPERATING CONDITIONS

Temperature - Cryogenic, -328°F (-200°C) with thermal cycling to ambient temperatures  
Application - Class 150 stainless steel piping with low strength stainless steel fasteners  
Media - Liquid Nitrogen  
Size - 6"

## SOLUTION AND BENEFITS

Flange joints with GYLON EPIX® do not require live load to maintain a tight seal, which cuts down on unnecessary costs. GYLON EPIX® 3504 was installed in August of 2018 and continues to seal with no maintenance or retighting required.

For more information, please visit:  
<http://www.garlock.com>