

# TEADIT® Bromine Manufacturer CASE HISTORY

## INDUSTRIAL SEGMENT

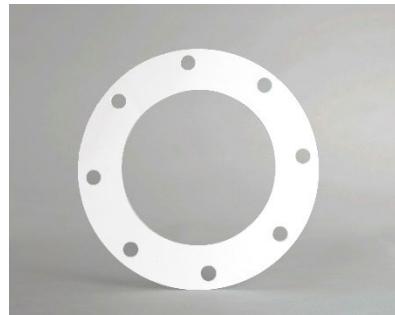
Chemical Processing

## APPLICATION

Hydrobromic Acid, Sulfuric Acid, Diatomic Bromine

## Equipment

Circulation Heater



## SCENARIO

A chemical processing facility was utilizing PTFE envelope style gaskets on a circulation heater. After only a few days in service, leaks developed leading to pressure loss and inefficiencies in the system as well as corrosion issues

## SOLUTION

Teadit technical and application personnel visited the facility and noticed discoloration of the gaskets and other signs indicating chemical attack. Since the PTFE was compatible with the service, it was concluded that the envelopes were failing to seal allowing the process to attack the inexpensive filler gaskets. Virgin PTFE in general is a poor choice in heated and cycling applications due to its tendency to creep and relax.

## CUSTOMER GAINS

Due to the corrosive nature of the application, a 100% PTFE gasket was preferable, so 24SH expanded PTFE was recommended. The expansion process of PTFE creates microscopic high strength strands that give the material excellent resistance to creep even at elevated temperatures. To ensure that the gasket was properly installed to generate adequate compression and densification of the material, an installation procedure and optimal torque recommendation were provided to the customer. After 5 months in service, no leaks were found, and the system was running at peak performance.