

Case Study: GYLON EPIX® 3504 - Multinational Chemical Processor



INDUSTRY

Chemical

CUSTOMER

Multinational Chemical Processor

BACKGROUND

On glass fiber reinforced process lines, rubber steel gaskets are specified. Chemical attack of the gasket was observed after less than six-months of service. It was at this point that the customer contacted Garlock for assistance in selecting a product that would provide the necessary chemical resistance and a minimum service life of one year to get them through to the next outage.

CHALLENGES FACED

Extremely corrosive and toxic media, sulfuric acid and hydrogen peroxide, are being handled. In addition, the customer reported that several of the non-metallic (FRP) flanges were misaligned, which made it difficult to achieve and maintain an effective seal long term.

OPERATING CONDITIONS

Temperature - Ambient

Application - FRP stub ends with metal backers. Flange surface texture is smooth with no raised features.

Media - 25% sulfuric acid and some hydrogen peroxide

Pressure - 2-3 bar (29-43 psig)

Size - DN200 PN10 (8"-150#)

SOLUTION AND BENEFITS

Two GYLON EPIX® 3504 test gaskets were installed in July 2018 and were removed and inspected in March 2019 at the scheduled outage. The impression of the flanges was clearly visible showing that the gasket conformed to the flange misaligned faces. GYLON EPIX® 3504 showed absolutely no sign of any chemical attack or leakage during the evaluation period. The previously used metal-rubber gasket may have degraded due to the use of low quality rubber. Garlock GYLON® is a made from premium grade PTFE material to ensure reliable performance.

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<http://www.garlock.com>

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