

## GYLON EPIX<sup>®</sup> Style 3504

### Case Study: Agricultural Chemical Industry



#### Industry

Chemical Processing

#### Customer

Our customer develops technologies and manufactures chemical products for industrial, specialty and agricultural uses.

#### Background

The customer's company offers a range of innovative and environmentally sustainable products to fight pests, weeds and disease to increase quality and yield for their customers. Focus is on CN-based chemical specialties and agricultural chemicals, including next-generation fumigants and biocides.

#### Challenges faced

The customer's application has a flange joint at the inlet/outlet of a plate and at the frame heat exchanger. One flange is glass lined and the other is coated with PTFE.

The media being sealed, cyanogen chloride is highly toxic. Our customer tried expanded PTFE which had good resistance to the media but fugitive emission leaks caused alarms making the area unsafe. EPDM rubber gaskets were used and sealed but only for 3 months. FKM rubber gaskets lasted 6 months.

Therefore, the customer was looking for another, better solution and contacted the Garlock team.

#### Operating Conditions

1. Media: Cyanogen chloride (chlorcyan), water and 2.7% hydrochloric acid
2. Temperature: 60°C (140°F)
3. Pressure: Vacuum 0 to -20 kPa (0 to -2.9 psi)
4. Sizes: 90mm x 162mm (3.54" x 6.38")  
70mm x 142mm (2.76" x 5.59")

#### Solution and Benefits

Together with the customer, the Garlock team discussed the challenges and Garlock recommended GYLON EPIX<sup>®</sup> 3504. Garlock application engineers made a prototyping. Afterwards GYLON EPIX<sup>®</sup> 3504 was tested in the application with the glass lined flange and the PTFE coated flange. The result was impressive. GYLON EPIX<sup>®</sup> 3504 lasted more than a year with no retightening and no leakages.

Since that time the customer is using GYLON EPIX<sup>®</sup> on the given exchanger. No imprints of the EPIX structure are shown on either of the glass lined and ptf lined flanges.

For more information, please visit:  
[www.garlock.com](http://www.garlock.com)

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