

Hi-Tech Seals can help solve or prevent seal failure.

There are several types of seal failure that can be solved by using the correct sealing product.

Some common types of seal failure include:

- Chemical attack
- Thermal degradation
- Mechanical failure
- Improper seal design



Rendering of thermal degradation

As industries develop and attempt to decrease production times, the sealing industry is seeing increased pressure to develop new products to meet higher heat and more aggressive chemicals. In addition, increased design expertise is required to understand the mechanics to allow seals to perform at their best.

In order to optimize seal performance and avoid failures you must identify the process conditions, examine the seal design and determine the elastomer properties that best suit your application. Identifying the correct part may seem like a large task, but it doesn't have to be. When you work with Hi-Tech Seals you receive access to DuPont Performance Elastomers' engineering support. DuPont Performance Elastomer is the industries leading elastomer material developer.

Note: The figures on this page represent a few of the causes of seal failure.



Chemical Degradation



Explosive Decompression



Extrusion



Kalrez® perfluoroelastomer
parts

From DuPont Performance Elastomers

DuPont P.E. High Performance Seals for harsher environments

Created in the 1960's by DuPont Performance Elastomers, Kalrez® has established itself as the most trusted name for high performance seals. Perfluoroelastomers exhibit peak performance in high temperature range applications and have a broader chemical resistance than any other elastomer. Kalrez® has a service temperature up to 327°C and is resistant to more than 1800 chemicals. Kalrez® has the broadest Perfluoroelastomer offering in the industry. DuPont Performance Elastomers has developed a series of Kalrez® compounds capable of solving very specific sealing problems.

Kalrez® Engineering Support

When working with Hi-Tech Seals and DuPont Performance Elastomers to create Kalrez® parts you will receive support from the industries most knowledgeable and experienced sealing application engineers. As part of our engineering support, customers receive additional tools to help them develop the best seal for their application. Some of the great tools Hi-Tech Seals offers are:

- Engineering and application support
- Failure analysis capabilities
- Extensive R&D facility offerings
- Case studies
- Chemical Resistance Guide
- and Kalrez® Application Guide

With the help of Hi-Tech Seals Inc. and DuPont Performance Elastomers customers can rest assured that their issue will be taken care of properly. If you are experiencing a form of seal failure or have a new application, please contact Hi-Tech Seals for help in selecting the correct product.



ISO 9001
REGISTERED QMS

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