

ORD Problem Solved!

Chloramine Resistant Materials



Consumer technology changes and improves our way of life. However, these advancements can sometimes alter existing service environments, disrupting rubber elastomer properties. For example, chloramine is one primary method of disinfecting potable water at treatment facilities. Chloramine is produced by combining chlorine and ammonia. It is weaker than chlorine, but provides more stability, extending disinfectant benefits throughout a water utilities distribution system.

Ironically, chloramines are more aggressive to elastomers than equivalent concentrations of free chlorine. Chloramine attacks elastomeric seals, causing degradation, disintegration, and swelling. This can result in seal failure and warranty issues when used in plumbing fixtures and potable water handling equipment.

A comprehensive study by Parker (to the standard ASTM D6284 test for rubber properties) documents the premature degradation and failure of NSF-certified elastomeric materials when exposed to chloramine-treated water. Based on these test results, Parker's new chloramine-resistant materials will provide significantly longer useful seal life compared to other tested materials. E1514-70 and E1512-70 (with and without lubrication) help safeguard against leakage and contamination, reducing potential warranty claims and performance issues. They can be used in bathroom faucets, kitchen fixtures, water filtration systems, and other similar applications that come in contact with municipal water. For more information on these globally available materials or any of Parker's other 200+ rubber materials, call applications engineering.

Success Story

Application:
Seal in bathroom faucet

Problem:
The customer was having problems with seal disintegration, finding bits of tiny black rubber flaking off in the water. The company's reputation for quality was being questioned and numerous warranty claims were being filed.

Parker Solution:
Parker recommended E1512-70, one of the four Parker chloramine-resistant materials developed for the consumer market. E1512-70 provides an extended seal life over other existing materials and helps safeguard against contamination and premature seal failure.

Outcome:
With use of the Parker material, the customer began to regain its reputation for quality and warranty claims decreased.

