

## CERTIFICATION

The use of various elastomers and their sensitivity to chloramines and its effect on long-term performance has at times been a concern to utility engineers. A number of studies to determine the effect of chloramines on elastomeric materials used in the water works industry have been undertaken. To date, no clear pass-fail criteria related to these findings have been developed. However, some general conclusions can be drawn from the data.

1. Chloramine treated water is more detrimental to most elastomers than water with an equivalent chlorine concentration.
2. The detrimental effect of chloramines on various elastomers is end use related.
3. Compounding and processing of various elastomers plays an important role in their resistance to chloramines.
4. The least sensitive elastomers are fluorocarbons, silicones and thermoplastics. Other elastomers including SBR used in most pipe gaskets have shown some sensitivity to chloramines. However, SBR gaskets removed from line service after 28 years showed minimal loss of physical properties and test results were within the requirements for new gaskets.

It is the conclusion of the Hultec technical group, also supported by independent test data, that the performance life of installed SBR sealing gaskets is not compromised by exposure to chloramines or chlorine treatments. Installed SBR gaskets in a normal water distribution system operating within industry standards will perform quite satisfactorily.