Chlorine dioxide is a strong oxidizing gas that finds many uses as bleaching agent and disinfectant, being a more effective and safer biocide than other sources of chlorine. Most of the production of chlorine dioxide is used at paper mills for pulp bleaching.

A North American based paper mill had to perform frequent repairs in a pump handling chlorine dioxide in water. According to the reliability engineer, the incumbent non-black FFKM typically failed within 5 months of installation because of the extremely aggressive nature of the stream. With replacement of the seals by Kalrez® 7275, the pump seal life was extended to more than 12 months, removing the pump from the “bad actors” list and into a regular yearly maintenance.

Kalrez® Spectrum™ 7275, a specialty non-black perfluoroelastomer product, is made with a DuPont patented crosslinking system, and is suggested for seal applications where high resistance to oxidizing and reactive media is required.

Figure 1: Durability of Kalrez® Spectrum™ 7275 relative to the MTBR of the incumbent FFKM in a chlorine dioxide/water stream.
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