

# DuPont™ Kalrez® 0090 Perfluoroelastomer Parts

## O-Rings in boiler feed pumps for power stations

To produce electricity, a nuclear power station\* needs a generator driven by a steam turbine. This turbine is put in motion by steam which is subsequently cooled down and condensed. The resulting feedwater will then be pre-heated and reinjected in the steam generator thanks to a boiler feed pump. Kalrez® 0090 O-Rings help to increase the pump lifetime.

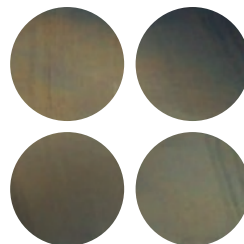
\* Kalrez® perfluoroelastomer parts are not to be used as the primary seal on a nuclear reactor or a nuclear reactor cooling loop.

- **Chemicals and cleaning:** Water with dissolved oxygen, ammonia sodium salts and hydrazine
- **Process conditions:** 200 °C  
3.5 MPa, Rapid Gas Decompression (RGD)
- **Incumbent solution:** Competitive FFKM
- **Performance challenge:** Insufficient lifetime vs. customer expectations (18 months)



### Kalrez® 0090 benefits:

- The excellent chemical resistance and RGD performance at high temperature of Kalrez® 0090 reduce leakage and extend the mean time between repair (MTBR) of the pumps
- The use of Kalrez® 0090 O-Rings resulted in reduced maintenance costs and increased safety



Kalrez® 0090:  
ISO 23936-2 rating 0000

The performance is based on tests performed by the customer. This data should not be used to establish specification limits.

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