

DuPont™ Kalrez® Spectrum™ 0040 Perfluoroelastomer Parts

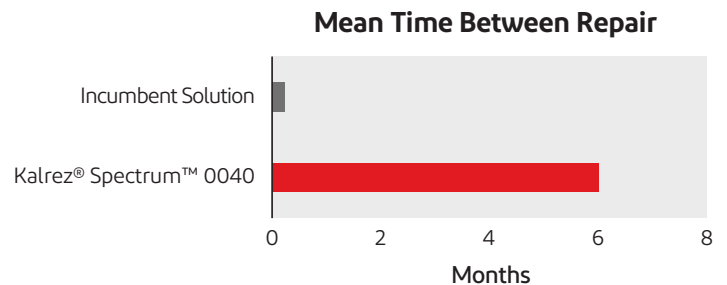
O-Rings for mechanical seals in oil refineries

Oil refineries transform and refine crude oil into a variety of products and are often located in regions with very cold climates. This added complexity requires that equipment and materials used in these processes are not only resistant to hydrocarbons, but are also capable of maintaining high-performance and sufficient sealing at very low temperatures. Kalrez® Spectrum™ 0040 perfluoroelastomer parts have been formulated to meet these demanding requirements for mechanical seals designed to operate in extreme conditions.

- **Chemicals and cleaning:** Hydrocarbons
- **Process conditions:** Outside temperature cycles from -48 °C to +15 °C and back to -48 °C in a 24-hour period
- **Incumbent solution:** PTFE encapsulated silicone O-Rings
- **Performance challenge:** Insufficient lifetime
Mean Time Between Repair (MTBR):
1 week

Kalrez® Spectrum™ 0040 performance:

- O-Rings allowed the mechanical seals to be operated continuously with outside temperature oscillating between -48 °C and +15 °C
- MTBR was extended from 1 week to 6 months (24x longer), leading to significant costs reduction and higher productivity



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

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