



Problem Solved!

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Application Success Stories

Application:

Jet engine scavenge oil pump.
MIL-PRF-23699 HTS turbine oils up to 550°F.

Problem:

Standard AS3209 fluorocarbon O-rings were failing within 2,000 flight cycles, resulting in oil leakage and smoke generation.

Parker Recommended:

Parker's FF200-75 O-rings. Meeting the stringent requirements of AMS7257 were a critical first step in solving this customer's application problem. On top of these requirements, Parker and the engine manufacturer performed extensive performance testing to determine the service life in application.

Outcome:

Parker's FF200-75 O-ring material provided the longest service life of all elastomers tested in the application. Service life testing indicated at least a fivefold improvement in service life over the AS3209 O-rings used previously.

Parker Parofluor ULTRA™ FF200-75 Exceeds AMS 7257C Requirements

Aerospace specification AMS 7257C provides the minimum requirements a material must meet to be considered capable of long term exposure up to 550°F and exposure to petroleum oils, jet fuel and phosphate ester hydraulic fluids.. Aerospace applications subject to this specification have extremely high temperatures and are exposed to various environments. Because many applications demand excellent seal performance in extreme environments, customers may choose to specify a material that exceeds the AMS 7257C standard.

Parker's Parofluor ULTRA FF200-75 exceeds AMS 7257C, demonstrating superior retention of mechanical properties and resistance to compression set after longer term fluid exposure and high temperature.

FF200-75 not only exceeds standard requirements, but it provides these added benefits without the typical cost penalties associated with upgrading materials.

Benefits:

High temperature capability

- Expanded range of product application
- Increased margin of safety

Low compression set

- Longer expected seal life
- Increased low and high pressure sealability

High seal force retention

- "Quasi-static" sealing capability where vibration or limited motion is present
- Improved low viscosity media sealing performance

Fluid compatibility

- Superior retention of desirable/required physical properties
- Highly reliable seal performance
- Ease of assembly versus non elastomeric or elastic/plastic seal types

For additional information on this or any of Parker's 200+ rubber compounds, please contact a Territory Sales Manager or an Applications Engineer.