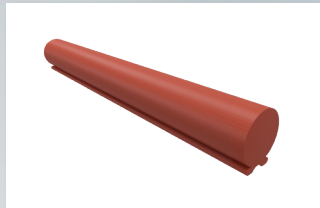
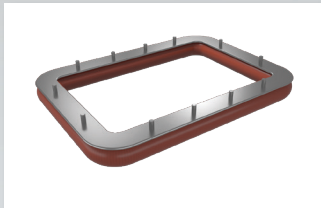
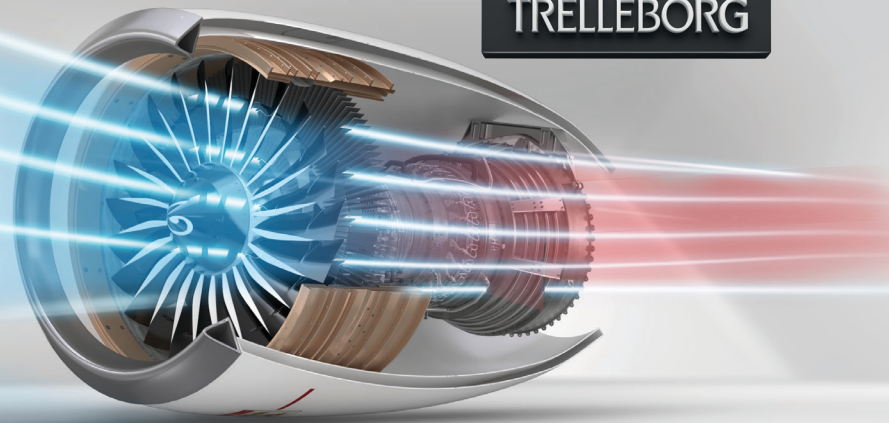




Ultra High Temp Seal



The unique Ultra High Temp Seal means aircraft designers do not need to compromise

The Ultra High Temp Seal is the only high temperature fire seal that can operate up to +315 °C /+600 °F and also meet all customer requirements for a fire seal. This means aircraft designers no longer need to compromise in their quest to run engines more efficiently at hotter temperatures.

During an operating cycle, the engines, auxiliary power units and surrounding structures, can be exposed to extreme temperatures, and specialized fire seals are there to ensure safe and reliable operation. This is an important function, but even more crucial, they serve as a preventative measure to contain the spread of fire should such an event occur. This then allows the aircraft a 15 minute window to safely land.

The hotter an aircraft's engines run, the more thrust is obtained from the same amount of fuel resulting in a more efficient engine and lower fuel consumption. This has led aircraft designers to aim at running engines at continuously higher temperatures with the latest options operating at +315 °C/ +600 °F and beyond, significantly higher than their predecessors.

The Ultra High Temp Seal is unique. It's patent-pending design overcomes the inherent silicone characteristic of relaxation and compression set at elevated temperatures; a major cause of failure in a fire seal's ability to perform against all requirements.

A full test program was undertaken to prove the product's capabilities at different compression loads. In heat soak tests, the Ultra High Temp seal performed better than other fire seals. In most cases it was below a 15% permanent set target.

Applications

- Aircraft engines
- Auxiliary Power Units
- Nacelles
- Engine Pylons

Specifications

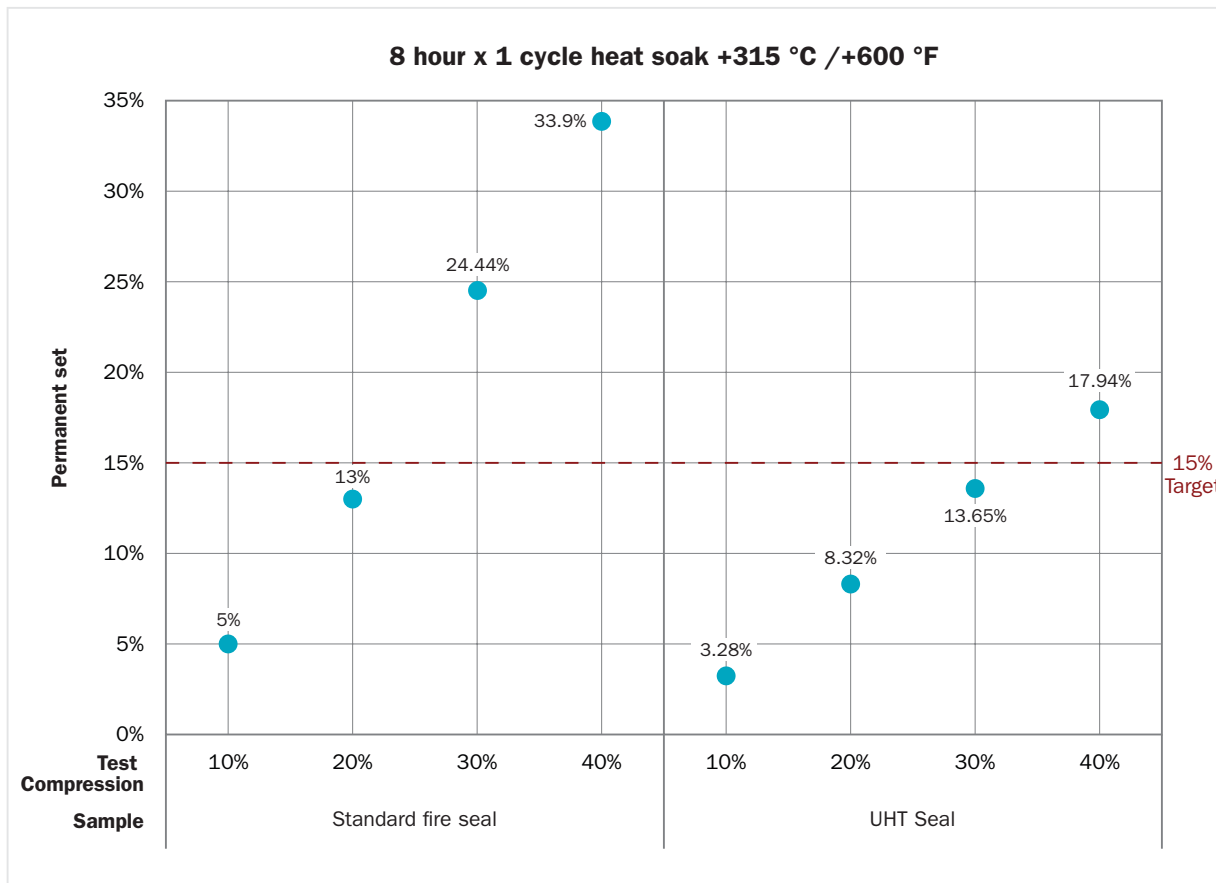
- Operating temperature of -40 °C /-40 °F to +315 °C /+600 °F
- Engineered to perform 60,000 flight cycles (take off, flight and landing) dependent on application
- Fully operational with minimum compression set over a seal deflection range of 15% to 40%
- Meets the requirements of US Federal Aviation standard AC20-135 Powerplant Installation and Propulsion System Component Fire Protection Test Methods and Standards and Criteria, as well as ISO 2685:1998 Aircraft – Environmental Test Procedure for Airborne Equipment – Resistance to Fire in Designated Fire Zones

Features and Benefits

- Improved performance over life of aircraft
- Eliminates need for secondary thermal protection of seals
- Lowers overall weight of sealing system
- Drop in replacement for current seals
- Reduced cost of ownership as a result of extended life and fewer parts
- Solution can be tailored to customer specifications
- Operational at temperatures at or above +315 °C /+600 °F
- Active sealing in absence of air pressure

TEST DATA

The Ultra High Temp Seal underwent substantial testing, including an eight hour heat soak test at a temperature of +315 °C /+600 °F, and at test compression loads between 10% and 40%. Results were substantially improved compared to a standard fire seal layup consisting of high temperature silicone and fireproof fabrics.



As a leading supplier of seals to the global aerospace industry, Trelleborg Sealing Solutions has been supplying airframe seals for over 60 years. It's range of airframe seals is well-established in the market and the Ultra High Temp Seal is the latest in these evolving offerings.

For full details of the Trelleborg Sealing Solution Aerospace products and materials go to www.tss.trelleborg.com.