

FOR IMMEDIATE RELEASE

GREENE, TWEED DEVELOPS NEW LINE OF FLAME-RESISTANT SEALING SYSTEMS FOR COMMERCIAL AIRCRAFT

Kulpsville (June 2015) – Greene, Tweed has announced a new line of Fire Seal designs that address flame resistance requirements in aircraft hydraulic systems. The new designs will be showcased this month at the 2015 Paris Air Show.

With the onset of new aircraft programs over the next decade, demand has increased for actuator designs that meet and exceed a more rigorous performance envelope. Some of the requirements, such as the fire and flammability resistance defined in RTCA, Inc's DO-160, go beyond the use of standard hydraulic seal designs. As a result, Greene, Tweed developed a line of products that are engineered to meet this need.



Fire Seal Composition

The Fire Seal combines the effective static and dynamic sealing performance of Greene, Tweed's AGTL™ Ring – an elastomeric contact seal with a hydromechanically energized anti-extrusion ring – with a cammed back-up ring assembly for extrusion resistance at extreme internal temperatures in excess of 1000°F / 538°C. There are other options for the primary sealing component as well, including Greene, Tweed's Enercap® II seal for demanding dynamic operating conditions.

The inboard backup ring is typically a filled thermoplastic material, while the outboard ring is made from copper alloy that maintains structural integrity at extreme temperatures. The cammed back-up ring design allows for activation of the metallic ring against the mating hardware in order to block off the extrusion gap under pressure.

Arlon® 3000 XT

Greene, Tweed's newest and most advanced polymer, Arlon 3000 XT, was chosen for the cammed back-up ring. With a glass transition temperature 35°F (20°C) higher than PEEK, Arlon 3000 XT exhibits superior mechanical property retention from 350°F (177°C) to 600°F (316°C).

In extrusion testing at 35,000 psi and 550°F (288°C), Arlon 3000 XT outperforms both virgin and filled PAEK polymers, including 30% carbon-filled grades. For industry operators, this means greater reliability of thermoplastic components in high temperatures, and an expansion of their capabilities in fire resistant/fire proof environments as defined by AS-4273.

Greene, Tweed continues to test and expand Arlon 3000 XT technology to new Aerospace applications. To learn more, visit them at the Paris Air show – Hall 2B, Stand G156. The show runs 15-21 June.

About Greene, Tweed

Greene, Tweed leverages expertise in a variety of markets and products to give customers the most innovative solutions to meet performance challenges and reduce total cost of operation. With fully qualified engineering, sales and support personnel located throughout the Americas, Europe and Asia, Greene, Tweed delivers solutions to individual customer applications on a global scope. Greene, Tweed products are sold and distributed worldwide. For additional information, contact Greene, Tweed at +1.215.256.9521 or visit our website at www.gtweed.com.

Arlon® 3000 XT by Greene, Tweed based on VESTAKEEP®, an Evonik product.

Greene, Tweed & Co. – Aerospace

2075 Detwiler Road, P.O. Box 305, Kulpsville, PA 19443-0305 | t +1.215.256.9521 | f +1.215.256.0189 | www.gtweed.com