



Starfire Systems® is pleased to announce the release of a new ultra-high temperature ceramic forming precursor

June, 15 2021 – Schenectady, NY – Starfire Systems Inc. is pleased to announce the release of a new ultra-high temperature ceramic forming precursor. The Hafnium Carbide (HfC) precursor is a valued addition to the family of SiC forming pre-ceramic polymers. This new system will build on the proprietary chemical process Starfire Systems used to create its flagship product SMP-10 and will offer customers additional options for their high temperature requirements.

HfC precursor transforms into a thermally stable hafnium carbide (HfC). The HfC precursor cures at or below 200°C. The cured HfC polymer can be heated to 1600°C in an inert environment and converted to a crystalline HfC with a high ceramic yield.

The HfC polymer can be used to make ceramic matrix composites as well as high purity powder. These materials provide the ultimate high temperature capability making them ideal candidates for hypersonic and re-entry vehicle applications.

“Starfire is committed to driving Polymer Derived Ceramic (PDC) technology and maintaining its place as a leader in the world of advanced ceramics,” stated David Devor, Starfire’s CEO. “HfC precursor is one of several new complementary products scheduled for release in 2021 specifically designed to expand the temperature range of parts and their performance”.

About Starfire Systems:

Starfire Systems, Inc (SSI) is a specialty material company focused on Polymer Derived Ceramics (PDC) and its Polymer-to-Ceramic™ technology. SSI’s core business is synthesis of silicon-based pre-ceramic polymers and SOL-GEL derived oxide forming materials which are used in polymer matrix composites, oxide and SiC based ceramic matrix composite (CMC) fabrication. SSI’s high temperature materials are useful in a variety of applications where durable, lightweight and high temperature complex shaped CMC’s are required. In addition, SSI has developed a broad range of specialty silane compounds which are used as CVD precursors in semiconductor dielectric coatings, matrix densification and high purity intermediates for synthesizing pharmaceuticals.

For more information, please contact Starfire Systems at info@starfiresystems.com