

## Starfire Systems Inc. Files Patent for Next Generation of Polycarbosilane Pre-Ceramic Polymers

Starfire Systems®, a leader in advanced materials, proudly announces the filing of a patent application for a new class of Polycarbosilane Pre-Ceramic Polymers.

GLENVILLE, NY, UNITED STATES, January 8, 2025 /EINPresswire.com/ --This innovative advancement represents a significant leap in the



production of Silicon Carbide (SiC) fibers and <u>Ceramic Matrix Composites</u> (CMCs), crucial materials for high-performance applications across industries including aerospace, defense, and semiconductors. The patent application, titled "Process and Catalysts for Producing Polycarbosilanes for the Production of <u>Silicon Carbide Fibers</u> and Composites," outlines the

development of a solid melt-processible polymer designed to produce SiC fibers.



Our widely recognized polymer, SMP-10, has set industry standards, and this latest innovation continues that legacy. We are confident that this new polymer will have a broad impact on the industry.""

David Devor CEO of Starfire Systems Inc.

Driving Innovation in Polymer-Derived Ceramics (PDC)

Building on over 30 years of market leadership, Starfire Systems® continues to redefine possibilities within the PDC space. This latest technology leverages Starfire's extensive expertise to deliver a scalable, and efficient solution for producing SiC precursors. SiC fibers are instrumental in applications demanding high strength, lightweight properties, and exceptional thermal stability.

"Starfire Systems is committed to driving Polymer-Derived Ceramic (PDC) technology forward while reinforcing our position as a leader in advanced ceramics," stated David Devor, CEO of Starfire Systems. "Our widely recognized liquid polymer AHPCS, known as SMP-10, has set industry standards, and this latest innovation continues that legacy. We are confident this new intellectual property will have a broad, positive impact on the industry."

## About Starfire Systems®

Starfire Systems, Inc. (SSI) specializes in the development and production of cutting-edge materials through its patented Polymer-to-Ceramic™ technology. The company focuses on synthesizing silicon-based pre-ceramic polymers and sol-gel-derived oxide-forming materials, enabling the creation of advanced polymer matrix composites and CMCs. These high-temperature materials excel in environments requiring complex shapes, lightweight structures, and exceptional durability.

In addition to its core offerings, SSI has developed a diverse portfolio of specialty silane compounds used as Chemical Vapor Deposition (CVD) precursors for semiconductor dielectric coatings and matrix densification. SSI's innovations support applications in industries ranging from aerospace and energy to defense and semiconductors.

For further details on Starfire Systems' pioneering technologies and products, visit <a href="https://www.starfiresystems.com">www.starfiresystems.com</a> or contact:

David Devor Starfire Systems Inc. +1 518-899-9336 info@starfiresystems.com

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