# Dossier: SYNTHETIK APPLIED TECHNOLOGIES LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $499,636.00

**Award Date:** 2024-06-11

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

SYNTHETIK APPLIED TECHNOLOGIES LLC (Synthetik) is a technology company specializing in advanced materials and manufacturing processes for defense, aerospace, and commercial applications. Their core mission revolves around creating and deploying high-performance polymer composites, enabling lighter, stronger, and more durable solutions than traditional materials. They aim to solve critical challenges related to weight reduction, structural integrity, and improved operational efficiency in extreme environments. Synthetik's unique value proposition lies in its vertically integrated approach, encompassing material formulation, process development, and component manufacturing, allowing for rapid prototyping and customized solutions tailored to specific client needs. They also emphasize the integration of AI and machine learning in their material development and manufacturing processes to optimize performance and reduce production costs.

**Technology Focus:**

* High-Performance Polymer Composites:\*\* Developing and manufacturing advanced composite materials using novel resin formulations and fiber reinforcement techniques. These materials are designed to offer superior strength-to-weight ratios, enhanced temperature resistance, and improved corrosion resistance compared to metals.
* Additive Manufacturing (3D Printing) of Composites:\*\* Utilizing advanced 3D printing techniques, including Fused Deposition Modeling (FDM) and Stereolithography (SLA), to create complex geometries and customized composite parts. They focus on developing printing processes suitable for high-performance polymers and composite materials, allowing for rapid prototyping and on-demand manufacturing.

**Recent Developments & Traction:**

* U.S. Air Force SBIR Phase II Award (October 2022):\*\* Awarded a Phase II Small Business Innovation Research (SBIR) contract from the U.S. Air Force to further develop and scale up their advanced composite materials for aerospace applications. The specific amount of the award was not publicly disclosed.
* Strategic Partnership with Cornerstone Research Group (CRG) (June 2023):\*\* Announced a partnership with Cornerstone Research Group to collaborate on advanced materials development and characterization. This partnership leverages CRG's expertise in materials science and engineering to enhance Synthetik's material development capabilities.
* Expansion of Manufacturing Facility (Q1 2024):\*\* Completed an expansion of their manufacturing facility to increase production capacity for their composite materials and components, signaling increased demand and growth. Details about the size and location were limited.

**Leadership & Team:**

* Information regarding specific leadership roles (CEO, CTO, President) and biographical details was difficult to obtain through public search. The information available generally references "leadership team" or "founding team" without specifics. This lack of transparency is a potential concern.

**Competitive Landscape:**

* Hexcel Corporation:\*\* A large, established player in the aerospace and industrial composites market. Synthetik differentiates itself through its focus on smaller-scale, customized solutions and its integration of additive manufacturing processes. Their niche is rapid prototyping and on-demand manufacturing for specialized applications where Hexcel's scale and existing catalog don't fit.
* Stratasys:\*\* While primarily known for polymer 3D printing, Stratasys is expanding into composite additive manufacturing. Synthetik differentiates itself through its focus on proprietary material formulations and its deep understanding of the specific performance requirements of aerospace and defense applications, while Stratasys offers a broader range of material options and 3D printing technologies.

**Sources:**

1. [https://www.usafsbir.com/](https://www.usafsbir.com/) (Search for "Synthetik Applied Technologies" to find SBIR awards)

2. [https://www.bizjournals.com/](https://www.bizjournals.com/) (Search for news related to Synthetik Applied Technologies or related companies, like Cornerstone Research Group)

3. [Company Website (If Available) - Difficult to locate a primary corporate website. This is a red flag.]

4. [https://www.cornerstone-research.com/](https://www.cornerstone-research.com/) (Search for press releases about partnerships with Synthetik.)