# Dossier: SURMET CORP

## SBIR Award Details

**Award Title:** N/A

**Amount:** $49,961.00

**Award Date:** 2024-07-19

**Branch:** DLA

## AI-Generated Intelligence Summary

**Company Overview:**

Surmet Corporation is a leading materials technology company specializing in the development and manufacturing of transparent ceramics, particularly Aluminum Oxynitride (ALON®) and Spinel, for demanding defense, aerospace, and commercial applications. Their core mission is to provide advanced materials solutions that enable superior performance in extreme environments, focusing on improving survivability, optical clarity, and mechanical strength in critical components. Surmet aims to solve the limitations of traditional materials in applications requiring a combination of transparency, hardness, and lightweight properties, such as transparent armor, sensor windows, and high-performance optics. Their unique value proposition lies in their proprietary ALON® manufacturing process, enabling cost-effective production of large-format, high-quality transparent ceramics with superior optical and mechanical properties compared to alternatives.

**Technology Focus:**

* ALON® (Aluminum Oxynitride) Transparent Ceramic:\*\* Surmet's flagship product is ALON®, a polycrystalline ceramic that is transparent in the visible and infrared spectrums. It boasts a hardness of approximately 2000 Knoop (more than three times harder than glass) and offers superior ballistic protection at a significantly lower weight than traditional armor materials.
* Spinel Transparent Ceramic:\*\* Offers excellent optical properties and mechanical strength, often used in applications requiring high durability and environmental resistance, such as protective windows and domes. Surmet offers customized spinel solutions tailored to specific customer needs.

**Recent Developments & Traction:**

* October 2022:\*\* Surmet received a $1.6 million award from the U.S. Defense Logistics Agency (DLA) to enhance manufacturing capabilities for transparent armor. This highlights ongoing government support for Surmet's ALON® technology.
* October 2021:\*\* U.S. Army awards Surmet a Phase III Small Business Innovation Research (SBIR) program for developing conformal transparent armor.
* Ongoing:\*\* Continued advancements in ALON® applications for high-speed missile domes and sensor windows are being developed and tested with support from various DoD agencies.

**Leadership & Team:**

* Dr. Ajay K. Choudhary (President & CEO):\*\* Possesses extensive experience in materials science and engineering, with a proven track record of commercializing advanced materials technologies. Has led Surmet through significant growth and expansion of its product portfolio.

**Competitive Landscape:**

* CoorsTek:\*\* A major supplier of technical ceramics, including transparent ceramics. Surmet differentiates itself through its specialization in ALON® and its specific expertise in transparent armor applications, offering potentially superior ballistic performance and clarity in select applications.

**Sources:**

1. [https://www.surmet.com/](https://www.surmet.com/)

2. [https://www.dla.mil/AboutDLA/News/NewsArticleView/Article/3184600/dla-awards-surmet-corp-16-million-to-enhance-manufacturing-capabilities-for-tran/](https://www.dla.mil/AboutDLA/News/NewsArticleView/Article/3184600/dla-awards-surmet-corp-16-million-to-enhance-manufacturing-capabilities-for-tran/)

3. [https://www.sbir.gov/sbirsearch/detail/211.HT0/](https://www.sbir.gov/sbirsearch/detail/211.HT0/)