

Aluminate® Sputter Targets Available 2025

Silver, re-engineered.

The Aluminate sputter target is a step change improvement to silver in low-e coatings. It's an alloyed silver target which surpasses the performance of conventional silver, enabling the production of silver-based coatings with significantly increased durability and lower absorption.

The Aluminate target is the nexus between silver microstructure and enhanced material properties, where the alloying component engineers the morphology of silver during deposition, leading to an array of new possibilities for designing low-e coatings.

PARTNERSHIP PROFILE: MIMSI

MIMSI (MIMSI Materials AB) is a Swedish deep tech startup that has developed a new precision silver alloy innovation for large area sputtering applications.



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ALUMENATE® SPUTTER TARGETS AT A GLANCE

The coated glass industry has long recognized that alloying silver improves the mechanical and chemical durability of low-e coatings. However, this approach compromises the optical and electrical performance of the coatings. The Aluminate target is the first silver alloy sputter material validated in industrial scale production coaters, which bridges the trade-off between durability and optical/electrical properties.

MATERION AND MIMSI: THE COLLABORATION ADVANTAGE

The collaboration between Materion and MIMSI unites MIMSI's unique material innovation with Materion's world-leading expertise in sputter target manufacturing. Together, we are the solution provider for next generation low-e coatings.



Overview continued

KEY BENEFITS OF ALUMENATE® SPUTTER TARGETS

Aluminate sputter targets provide a range of benefits to differentiate your coated glass product offering.

Increased durability*: Being an alloy, Aluminate targets provide your coating with inherently better mechanical and chemical durability without compromising the optical/electrical properties of the coating.

Lower absorption*: Low-e coatings using the Aluminate target instead of silver have lower absorption, providing more options to fine tune the optical properties of the coating stack.

Drop-in solution: The Aluminate target is applied through DC magnetron sputtering in industry-standard coating lines (off-line coated glass/soft coated glass).

Lower carbon footprint*: Aluminate targets lift the bar for high-performance coated glass while lowering its embodied and operational carbon footprint. This is achieved via the potential to improve energy and material-use efficiency in the manufacturing of coated glass products, in combination with increased durability throughout the product's life.

Target life cycle services available: Materion provides all of the same front-end and back-end services for Aluminate targets that are provided for silver sputter targets today.

*Exact performance figures are dependent on the design/configuration of the coating stack.

MARKET SEGMENTS

- Architectural Glass
- Automotive Glass

