

Certificate of Analysis (CoA)

Dec. 11, 2025

Product Name: Aluminum Magnesium Boride Sputtering Target

Chemical Formula: AlMgB_{14}

Purity: 99.9% (3N)

Dimensions: Ø76.2 mm × 4.0 mm (± 0.1 mm)

Backing Plate: None

Quantity: 1 pc

Lot Number: CSJM-251211TB

Manufactured by: Thin-Film Materials

Physical Description

- Form: Ceramic/boride sputtering target
- Appearance: Black to dark gray, dense ceramic
- Typical Phase: AlMgB_{14} (Boron-rich boride phase)
- Theoretical Density: ~2.5–2.6 g/cm³
- Fabrication: High-temperature boron-rich reactive sintering and precision machining

Chemical Composition (by XRF / ICP-OES)

Element	Symbol	Max. Content (ppm)
Aluminum	Al	Balance
Magnesium	Mg	Balance
Boron	B	Balance
Silicon	Si	<50
Iron	Fe	<50
Calcium	Ca	<30
Nickel	Ni	<20
Copper	Cu	<20
Oxygen	O	<100
Other elements (each)	–	<10
Total Impurities	–	<500 ppm

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Handling & Storage

- Store in vacuum-sealed packaging.
- Keep dry and avoid thermal shock due to ceramic brittleness.
- Handle with clean gloves to prevent contamination.

Declaration

This product has been manufactured and tested according to our quality control standards and meets the specifications stated herein.

Authorized Signature:

Inspection Certificate by: Nancy Liu

Approver by: Chen Qiang 