

## Certificate of Analysis (CoA)

Oct. 29, 2025

**Product Name:** Chromium Antimony (CrSb) Alloy Sputtering Target**Chemical Formula:**  $\text{Cr}_{0.5}\text{Sb}_{0.5}$ **Composition:** 50 at% Cr / 50 at% Sb**Purity:** 99.9% (3N, metal basis)**Dimensions:** Ø50.8 mm × 3.18 mm**Lot Number:** CSJM-251027TB**Quantity:** 1 Piece**Manufactured by:** Thin-Film Materials

### Physical Description

- Form: Metallic sputtering target
- Appearance: Metallic gray, solid
- Theoretical Density: ~7.12 g/cm<sup>3</sup>
- Fabrication: Vacuum melting, homogenization, and precision machining

### Total Impurities (by ICP-OES)

Element	Symbol	Max. Content (ppm)
<b>Cr, Sb</b>	<b>Cr, Sb</b>	<b>Balance (&gt;99.9%)</b>
Iron	Fe	< 50
Arsenic	As	< 40
Lead	Pb	< 30
Sulfur	S	< 30
Nickel	Ni	< 20

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Element	Symbol	Max. Content (ppm)
Oxygen	O	< 150

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**Handling & Storage**

- Store in a dry environment. Recommended to store in vacuum or inert atmosphere to prevent oxidation.
  - Handle with clean gloves to avoid contamination.
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**Declaration**

This CrSb alloy target is manufactured to exacting compositional standards, suitable for the deposition of thin films in spintronic and magnetic recording media research.

**Authorized Signature:**Inspection Certificate by: Nancy LiuApprover by: Chen Qiang