

## Certificate of Analysis (CoA)

Sep. 27, 2025

**Product Name:** Indium Oxide ( $\text{In}_2\text{O}_3$ ) Sputtering Target**Chemical Formula:**  $\text{In}_2\text{O}_3$ **Purity:** 99.99% (4N)**Dimensions:**  $\varnothing 50.8 \text{ mm} \times 3.0 \text{ mm} (\pm 0.1 \text{ mm})$ **Backing Plate:** Indium-bonded to 2 mm thick Copper (Cu) plate**Lot Number:** To be assigned upon production**Quantity:** 1 piece**Manufactured by:** Thin-Film Materials

### Physical Description

- Form: Oxide ceramic sputtering target, bonded
- Appearance: Light yellow to yellowish-brown, dense ceramic
- Crystal Structure: Cubic (Bixbyite-type)
- Theoretical Density:  $\sim 7.12 \text{ g/cm}^3$
- Fabrication: High-purity powder, pressing, sintering, precision grinding, and bonding

### Total Impurities (by ICP-OES / GDMS)

Element / Component	Symbol	Max. Content (ppm)
<b>Indium Oxide</b>	<b><math>\text{In}_2\text{O}_3</math></b>	<b>Balance (&gt;99.99%)</b>
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Tin	Sn	< 5
Iron	Fe	< 5
Zinc	Zn	< 5
Lead	Pb	< 5
Aluminum	Al	< 5
Copper	Cu	< 5

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Element / Component	Symbol	Max. Content (ppm)
<b>Other Metallic Impurities (each)</b>	-	< 1

**Handling & Storage**

- This is a brittle ceramic material. Handle with care to avoid chipping or cracking.
- Store in a dry environment to prevent moisture absorption.
- Avoid thermal shock during handling and use.

**Declaration**

We confirm that the above product meets the specified purity and dimensional requirements for high-performance thin-film deposition.

**Authorized Signature:**Inspection Certificate by: Nancy Liu

Approver by:

Chen Qiang