

Certificate of Analysis (CoA)

Dec. 25, 2025

Product Name: Indium Zinc Oxide (IZO) Sputtering Target

Chemical Formula: $\text{In}_2\text{O}_3:\text{ZnO}$

Composition: 90 wt% In_2O_3 / 10 wt% ZnO

Purity: 99.99% (4N, oxide basis)

Dimensions: Ø76.2 mm × 1.59 mm

Bonding: Indium-bonded to Copper (Cu) Backing Plate, 1.59 mm thick

Lot Number: CSFM-251225087TB

Quantity: 1 piece

Manufactured by: Thin-Film Materials

Physical Description

- Form: Amorphous Oxide Ceramic Sputtering Target, bonded
- Appearance: Dark gray to black, dense ceramic
- Crystalline State: Typically, amorphous (a-IZO) after deposition; target is sintered ceramic
- Theoretical Density: ~6.8 g/cm³
- Resistivity: < 5.0×10^{-4} Ω·cm (for sintered target)
- Fabrication: Powder synthesis, pressing, sintering, precision grinding, and bonding

Total Impurities (by ICP-OES / GDMS)

Element	Symbol	Max. Content (ppm)
$\text{In}_2\text{O}_3, \text{ZnO}$	In, Zn	Balance (>99.99%)
Tin	Sn	< 5
Iron	Fe	< 5
Silicon	Si	< 5
Aluminum	Al	< 5

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Element	Symbol	Max. Content (ppm)
Lead	Pb	< 5
Copper	Cu	< 5
Other Metallic (each)	-	< 2

Handling & Storage

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

Declaration

We certify that this IZO target meets the specified composition and 4N purity. It is designed for depositing high-mobility, amorphous transparent conductive oxide (TCO) films, particularly suited for next-generation flexible displays, touch sensors, and organic light-emitting diode (OLED) applications.

Authorized Signature:

Inspection Certificate by: Nancy Liu

Approver by: Chen Qiang

