

Material Data Sheet: Indium Tin Oxide

Indium Tin Oxide (ITO)

Version 1.2, Last Updated: 11/21/2025

1. Identification and Purity

Trade Name / Abbreviation	ITO
Chemical Formula	In ₂ O ₃ + SnO ₂ (90 : 10wt%)
SCI Part Number	X040050001XXXZ40
Purity	99.99%

2. Physical and Mechanical Properties

Property	Value	Measurement / Units
Density (Bulk)	7.14	g/cm ³
Density (Sintered)	6.99	g/cm ³
Melting / Sublimation	1526–1926	°C / °F
Hardness	≤ 2	Mohs Scale
Mechanical Stress / Modulus	293MPa (thin film)	MPa / GPa
Band Gap / Electrical Type	4eV	eV / Semimetal
Configuration	Planar & Rotary	Target Type
Backing Plate Compatibility	Planar: Molybdenum / Rotary: Titanium	Compatibility Notes
General Comments	Industry standard material for transparent conductive films.	—

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