

FTO COATED GLASS

USER MANUAL

Call Us: +91-8007799090 | +91-9765849656

Website: www.techinstro.com | E-Mail: info@techinstro.com

Working

FTO (Fluorine-doped Tin Oxide) glass type belongs to the TCO (transparent conducting oxide) glass category. It is a functional conductive glass product coated with a layer of transparent conductive FTO oxide film using the Spray Pyrolysis Method. The FTO-coated glass slides possessed superior heat and chemical resistance properties, making them thermally and chemically stable under atmospheric conditions.

■ Product Series: TISX

Technical Properties:

Specified FTO Sheet resistivity – ≤ 10 ohms/sq.

Typical FTO Sheet resistivity – 9 - 11 ohms/sq.

Transmittance at 550nm – $\geq 79\%$

FTO film Thickness – 1800-2000 Å

Haze - $\leq 2\%$

Glass Substrate Thickness – 1 mm



■ Product Series: TISXZ

Technical Properties:

Specified FTO Sheet resistivity – ≤ 7 ohms/sq

Typical FTO Sheet resistivity – 8 - 7 ohms/sq

Transmittance at 550nm – $\geq 86\%$

FTO film Thickness – 1800-2000 Å

Haze - $\leq 2\%$

Glass Substrate Thickness – 2.2 mm

■ **Product Series: TISXY**

Technical Properties:

Specified FTO Sheet resistivity – ≤ 15 ohms/sq

Typical FTO Sheet resistivity – 12 - 15 ohms/sq

Transmittance at 550nm – $\geq 85\%$

FTO film Thickness – 1400-1500 Å

Haze - $\leq 1\%$

Glass Thickness – 2.2 mm

| **Physical Properties**

Configuration – No Passivation layer on Glass

Substrate – Clear soda lime glass

Surface finished of glass – Single-Sided polished

Passivation layer thickness – NA

FTO coating method – Spray pyrolysis method

Operating Temperature – 450 °C

Surface Roughness – RMS1 10 nm, depending on various product

| **Size Variant**

25mm x 25mm | 50mm x 25mm | 50mm x 50mm | 75mm x 25mm

100mm x 100mm | 300mm x 300mm

■ **Important Note:**

1. Customization can be provided as per size or specifications.
2. Patterning is also done as per the design given by the client.

Applications

1. Thin film solar cells
2. Dye solar cells
3. Touch panels
4. Conductivity Measurements
5. Film or Layer Casting on FTO
6. Optical Devices and Liquid Crystal Displays (LCDs)
7. Organic Light Emitting Diodes (OLEDs)
8. Electroluminescent (EL) Devices
9. Photochromic Devices
10. DNA Immobilization and Detection
11. Sensors as well as Biosensors
12. Photovoltaic Devices (Organic and Inorganic)

Storage And Stability

This product should be stored at room temperature and Pressure, and its stability is indefinite. It should be placed in a clean environment.

Precautions and Disclaimer

These products are for R&D and industrial use, not for drug, household, personal, or other uses.

Packaging

It is supplied in bundles with highly-protective layers between individual slides within a light-protected, moisture-free, specially manufactured paper sheet.

Handling

At the time of slide handling, the researcher should use powder-free non-latex gloves, which should be handled carefully. While experimenting, if researched using a substrate with bare hands, the chances of contamination of coated surface due to finger oil are very high. Therefore it is advised to use nylon or polyester gloves. Each slide is well packed in moisture-free paper, so they should not rub each other.

If any researcher wants to check the resistivity, it is advisable to measure with the help of 4 probe methods to get an accurate result.

Feel Free to Reach Us

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