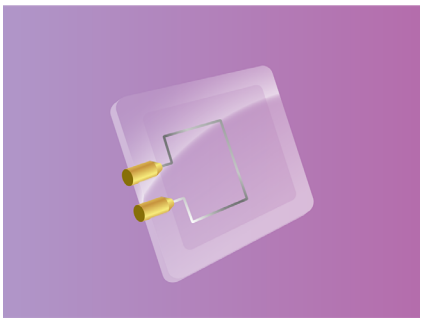
ITO for transparent, conductive coatings

The focus of coatings with indium tin oxide (ITO) is the creation of an electrically conductive surface with high transparency in the visible spectral range. Due to the semiconductor properties of this material, ITO is also suitable for reflecting long-wave IR radiation.



Surface resistance

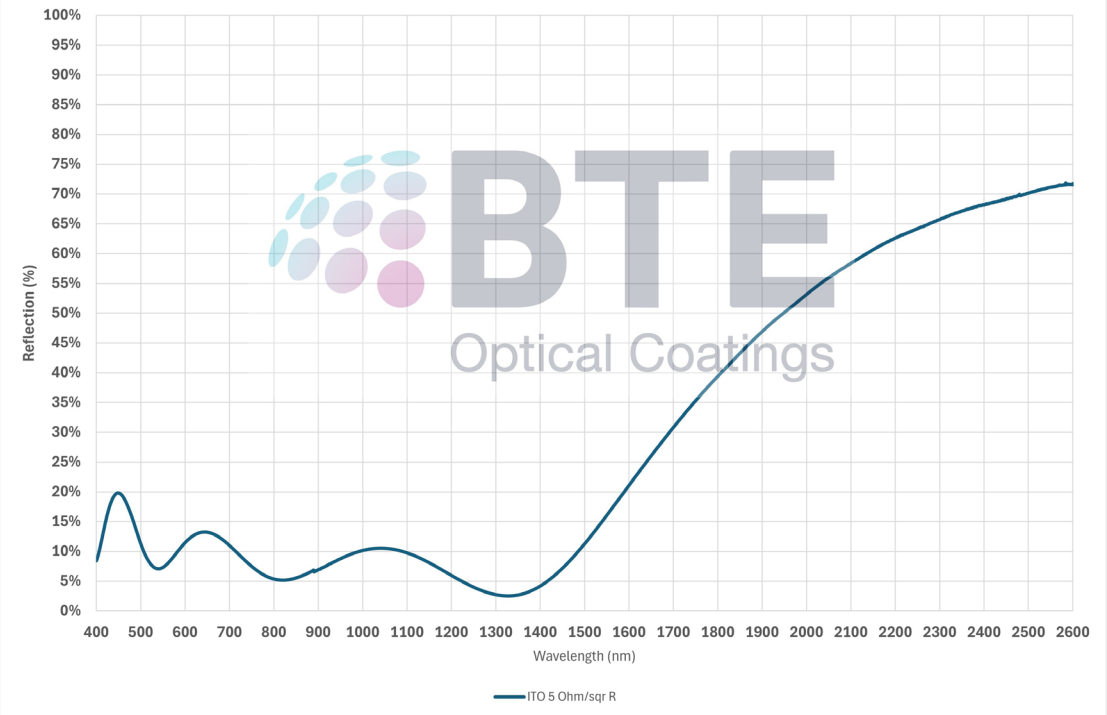
< 5 Ω /sqr up to multiple k Ω /sqr
(e.g. ESD-protection)

Substrates

Glass (Borofloat, B270, Float glass etc.),
Polycarbonate, other platics if applicable

Principal Curve ITO 5 Ohm/sqr R

Ex.: 5 Ohm/sqr R



Applications

- Contacting electrical panels
- Optically permeable heating glass
- Display technology (screens, micro-displays)
- Wafers
- X-ray applications
- Electromagnetically shielded windows or touchscreens in vehicles
- EMC shielding / EMI shielding
- Electroluminescent displays
- Microscopy
- Heating applications
- Antistatic applications

Advantages ITO-Coating

- Coating of indium, oxygen and tin (indium oxide / In2O3 and tin oxide / SnO2)
- Transparent, conductive layers
- Avoidance of static charges (ESD)
- High transmission in the visible and near infrared range
- High reflection in the infrared spectrum from approx. 1500 nm (can be reduced by additional layers if required)
- High stability against environmental influences and temperatur
- Very low specific resistance
  Contacting possible

Consistency (for example)

Abrasion: DIN ISO 9211-1-04
Adhesive strength: DIN ISO 9211-2-03
Moist heat: DIN ISO 9211-5-03

Principal Curve ITO 5, 150 & 600 Ohm/sqr T

Ex.: 5 Ohm/sqr R