

WTSQ11050-C- September 27, 2019

Item # WTSQ11050-C was discontinued on September 27, 2019. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

CONDUCTIVE ITO COATED WINDOW

- ▶ **Conductive Window for Electrical Shielding**
- ▶ **ITO Conductive Coating on One Side and AR Coating on the Other**
- ▶ **1" Square**



WTSQ11050-C
1" Square



An Arrow Indicates the
Conductive Coating (ITO) Side

[Hide Overview](#)

OVERVIEW

Features

- Broadband AR Coating on One Side for the 1050 - 1620 nm Range
- Indium Tin Oxide (ITO) Coating on Other Side
- Resistance Range: 50 - 80 Ω /sq (See Definition Below)
- N-BK7 Substrate

Thorlabs' Conductive Window is available with our standard -C (1050 - 1620 nm) broadband antireflection coating deposited on one surface and a conductive Indium Tin Oxide (ITO) coating on the other surface. ITO conductive glass windows can be used for EMI/RFI shielding or other electro-optical applications such as liquid crystals and solar cells. The ITO coating thickness was chosen to provide an excellent balance between the sheet resistance of 50 - 80 Ω /sq and optical performance. N-BK7 provides excellent transmission in the visible and near infrared portions of the spectrum.

Termination

Contact to the conductive surface can be made by copper tape, a silver epoxy-painted busbar, a silver-loaded silicone gasket, or a conductive fabric over foam gasket. Do not place wires directly in contact with the surface, or damage may result.

Sheet Resistance

Specifications

Specifications	
Substrate	N-BK7 ^a
Surface Quality	20-10 Scratch-Dig
Parallelism	≤ 3 arcsec
Surface Flatness	$\lambda/8$ @ 632.8 nm
Clear Aperture	>90% of Dimension
ITO Sheet Resistance Range	50 - 80 Ω /sq
Dimensions (L x W)	1" x 1"
Length and Width Tolerance	+0.00 / -0.10
Glass Thickness	5.0 \pm 0.20 mm
AR Coating (1050 nm - 1620 nm) (One Side)	$R_{avg} < 0.5\%$ at $0^\circ \pm 5^\circ$ AOI Reflectance of -C Coating

[Click Link for Detailed Specifications on the Substrate](#)

The resistance of these conductive windows is given by:

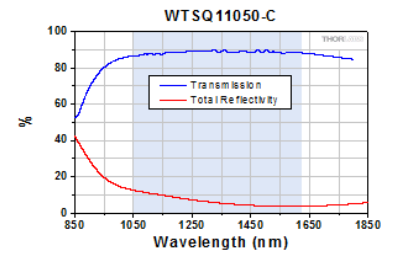
$$R = R_s * (L/W)$$

Where L and W are the length and width of the window, respectively, and R_s is the sheet resistance.

Sheet resistance is defined as ρ/t : the resistivity ($\Omega \cdot m$) divided by the thickness (m) of the conductive film.

Under the specific geometry of a square, where $L = W$, the resistance of the conductive windows is equal to the sheet resistance regardless of size. Under this special case, the sheet resistance is given in units of Ω/sq (Ohms per square).

Please contact Tech Support for more sizes, thicknesses, and wavelength options.



Click to Enlarge

Click to Download Transmission and Reflection Data
The shaded region in the plot represents the specified wavelength range for optimum performance.

[Hide Conductive Window, AR Coating: 1050 - 1620 nm](#)

Conductive Window, AR Coating: 1050 - 1620 nm

Part Number	Description	Price	Availability
WTSQ11050-C	Customer Inspired! 1" Square Conductive Window, AR Coated: 1050 - 1620 nm	\$120.12	Lead Time

