

Transparent Conductive Coatings

II-VI OS is Pleased to Announce Transparent Conductive Oxide Coatings (TCO) for the 3-5 micron Region.

II-VI Optical Systems' (II-VI OS) internal research and development efforts have resulted in a pair of TCO coating designs that combine anti-reflection performance with electrical conductivity.

- Conventional ITO—provides mid to low sheet resistance values in the visible and near IR region.
- II-VI OS TCO—provides mid level sheet resistance values in the 3-5 micron region

Example curves for transmission vs. wavelength are shown on the following page for samples at normal incidence, second surface uncoated. There is a marked improvement in transmission for the LWOS TCO at 3-5 μ m compared to conventional ITO coating with the same conductivity.

II-VI OS is able to prove design variations of this coating to meet custom applications as well.

Quality Standards

These coatings will meet the quality requirements if MIL-C-675, MIL-STD-810, MIL-M-13508, MIL-F-48616, and MIL-C-48496 where applicable

Environmental Performance

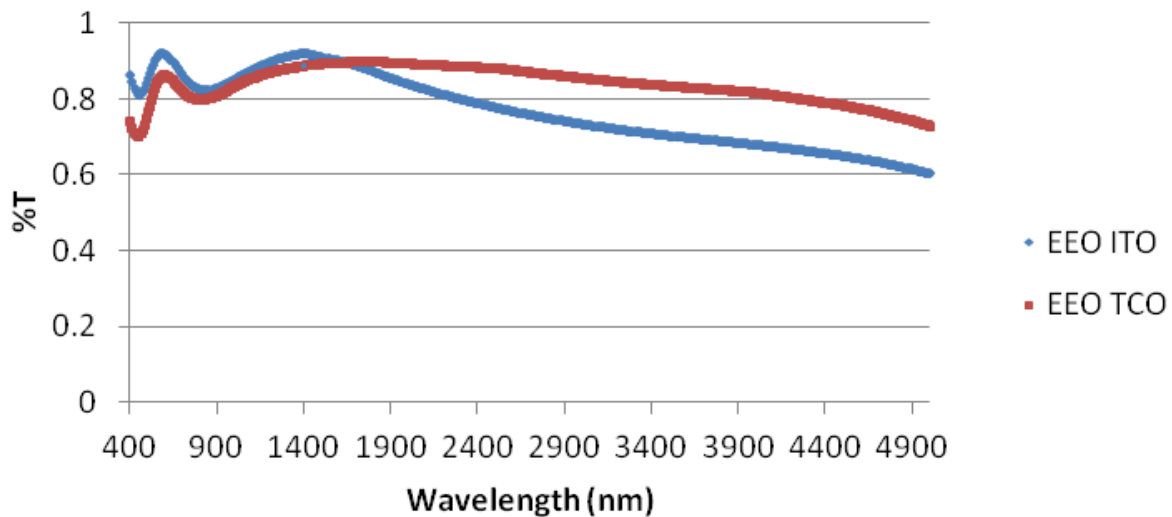
Coatings are produced to meet the following test criteria:

Test	Method
Adhesion	Cellulose tape test
Abrasion	Cheesecloth test
Humidity	24 hours at 120F, 95-100% RH
Salt Fog	24 hours per MIL-PRF-13830



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EEO conductive coatings on sapphire substrates (0.040")
equivalent sheet resistance (~200 ohms/sq)
second surface uncoated



Transmission performance of the window will be improved and can be optimized for specific wavebands by AR coating the second surface

Coatings are tested to ensure specification compliance and certification can be provided. Customer specified lot-testing is available upon request. For additional information please call 951-926-7666 or email your inquiry to opticalsystems.info@ii-vi.com.