

# Patterned and Printed ITO Coated PET Films

## Description

Multek offers value-added processes to compliment its Sheldahl brand Indium Tin Oxide (ITO) coated polyester film products. This includes the ability to pattern ITO and print ink circuitry which is done in a highly efficient, hands-off roll to roll format.

Typical applications for Multek’s patterned and printed ITO film include projected capacitive touch sensors, flexible displays, and flexible photovoltaic solar cells.

## Features

- Fine ITO patterned features.
- ITO pattern hiding through index matching.
- Specialty protection films, adhesive, and hard coats available as custom options.

## Base Film

- **Thickness:** 50, 125, 175, & 188µm (2, 5, 7, & 7.5mil) optically clear PET films.
- **ITO Resistance:** 60, 100, 200, 270\*, & 300 Ω/□ standard. (\* Index Matched.)
- **Patterned and Printed Widths:** 330mm or 435mm (13” or 17.125”).

## ITO Patterning

- **Process:** Roll to Roll Photolithography
- **Minimum ITO feature size:** 50µm
- **Max pattern size:** 415mm x 600mm
- **Resistance uniformity:** <±10%

## Printed Ink Circuitry

- **Process:** Roll to Roll Screen Printing
- **Inks:** Silver, Carbon, UV curable covercoat.
- **Minimum silver trace pitch:** 200µm
- **Resistance Uniformity:** <±5%
- **Silver to ITO Print Registration:** ±250µm

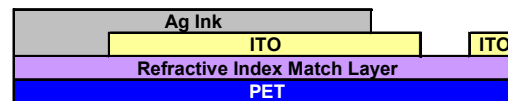
## Complimentary Processes

- PSA application.
- Lamination of multiple layers.
- Singulation of parts.

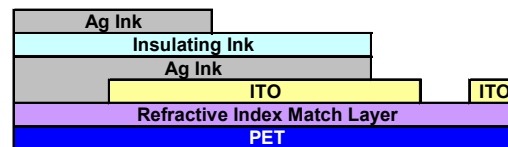
The information contained herein is based on typical data. Multek makes no warranties expressed or implied to its accuracy and assumes no liability arising of its use by others. The user should determine suitability of Multek materials for each individual application.

## Examples

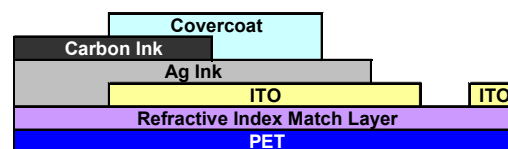
Patterned ITO with one silver ink printing pass



Patterned ITO with two silver ink printing passes separated by UV curable insulating ink (covercoat)



Patterned ITO with silver and carbon inks and a covercoat.



## Quality

Multek’s SHELDAHL materials have been an industry leader in the coating of flexible films for over 50 years. Multek products are manufactured using quality systems that conform to ISO9001 and TS-16949 quality standards. Key product characteristic are tested and monitored in accordance to applicable industry and strict internal standards. Certifications are available with product shipments.

## Contact Information

Worldwide: +1 (507) 663-8564  
 e-mail: [opticalmaterials@sheldahl.com](mailto:opticalmaterials@sheldahl.com)  
 Come visit us at: [www.sheldahl.com](http://www.sheldahl.com)

1150 Sheldahl Road · Northfield, MN 55057