

G907000 Refractive Index Matched ITO Coated PET Films with Hardcoat

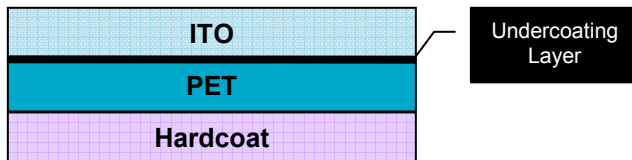
Description

Multek's SHELDAHL brand ITO coated films provide patterned ITO that is virtually invisible when used in projective capacitive touch screen applications. This refractive index match ITO coated film with a gloss hardcoat on the non-ITO coated side is available in both patterned and un-patterned formats. Multek can provide an optical solution for specialty customer applications upon request.

Features

- Optically clear PET film with hardcoat.
- Precision refractive index matched coatings designed for ITO pattern hiding for a range of film thicknesses.
- Uniform ITO coating with superb light transmission and color properties.
- High volume roll to roll process.
- Specialty protection films and optically clear adhesives available as custom options.

Construction



- **Film Thickness:** 5 & 7.5 mil (125 & 188 μm) optically clear PET films.
- **ITO Resistance Offered:** 270 Ω/\square standard.
- **Product Format:** Available as rolls or sheets with protection film applied to one or both sides, with optically clear PSA, and with ITO patterning as product options.
- **Un-patterned Width:** Master rolls are 1250mm wide on 6" (152mm) ID plastic cores. We will custom slit the master roll or sheet to your specification.
- **Patterned Width:** Standard roll widths are 330mm (13") and 435mm (17.125") on 6" ID plastic cores.

Product Offering

270ohm/ \square	5mil	7.5mil
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Quality

Multek's SHELDAHL Materials has 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 characteristics are tested and monitored in accordance to applicable industry and strict internal standards. Certifications are available with product shipments.

Ordering Information

When ordering please specify:

- Film thickness
- Product roll width
- Patterning schematic and/or appropriate CAD file.
- Confirm OCA compatibility with ITO.
- Applicable custom requirements.

Shelf Life and Storage

Shelf Life is approximately one year when kept at ambient conditions of 21°C and 50% RH in original unopened container.

Contact Information

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Typical Product Characteristics

Table I

Characteristics & Performance	Test Method	ITO Coated Film with Pattern Hiding
Nominal Surface Resistivity (Ohms/Sq) of Master Roll	Q000322	270 ohm/sq ± 30 ohms/sq avg. Individual readings can be ± 40 ohm/sq. (Higher than nominal is available)
Pencil Hardness (Hardcoat side)	ASTM-D-3363	≥3H
Adhesion	ASTM D 3359 Method B	5B
Gloss (60°) of base PET with HC	ASTM-D-1003	≥170%
%T@550nm	HunterLab	>86.0 avg.
L* (in Transmission)	HunterLab	>94.0 avg.
b* Color (in Transmission)	HunterLab	<2.5 avg.
a* Color (in Transmission)	HunterLab	<0.0 avg.
%Haze	HunterLab	≤1.5 avg.
Dimensional Stability	150°C for 30min.	≤1.5%
Flatness	Q000790	<0.4 in (10.2 mm)

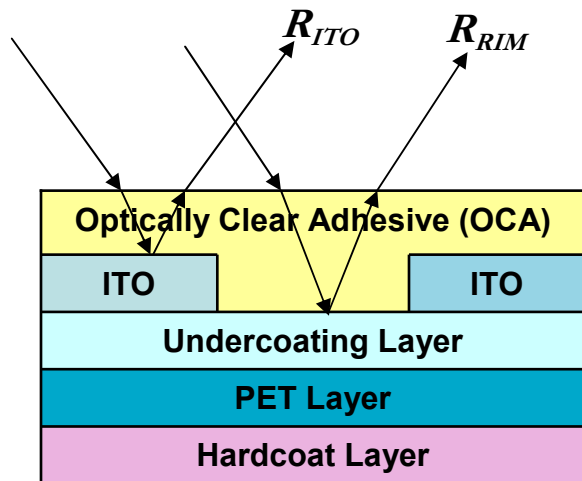


Table II

Pattern Hiding Performance

Optical Reflectance Difference between OCA/ITO/PH/PET Stack and OCA/PH/PET Stack $\Delta R = |R_{ITO} - R_{RIM}|$ within visible band (400 nm ~ 700 nm)

Layer Stacks of:
OCA/ITO/UC/PET/HC and OCA/UC/PET/HC
 $\Delta R = |R_{ITO} - R_{RIM}| < 0.7\%$ avg. within visible band

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