



# DIAMOX ITO PET Film - 80-100 Ohms/Sq

## **INTRODUCTION**

Diamond Coatings Limited, a privately-owned company, is a recognised leader in the production of vacuum coatings which includes the **DIAMOX** Indium Tin Oxide (ITO) range. The ITO coating is a highly conductive transparent coating which is available deposited on glass or plastic substrates.

**Diamox** ITO is used in a wide range of applications including electromagnetic/radio-frequency (EMI/RFI) shielding, electrostatic protection (both anti-static and electro static discharge), heated filters for electronic displays and the active component in touch screens. The company supplies a large number of OEM's in the electronic and electrical industries in Europe, USA and the Far East.

## **CAPABILITY**

The Company has a reputation for innovation having developed the **Diamox** process and designed and built its own coating plant to deposit the indium tin oxide onto the substrate. The **Diamox** process is carried out at low temperatures in a vacuum, allowing a variety of plastics including polycarbonate, acrylic and polyester as well as glass to be coated. A flexible system for handling the substrate allows both flat and curved surfaces, as well as a range of injection moulded shapes, to be coated. The plant is capable of coating substrates up to 1000mm x 1000mm and with a sheet resistance between 8 and 1000 ohms/square.

#### DIAMOND COATINGS LTD.

Unit 3&4 Sterling Park, Pedmore Road, Brierley Hill, West Midlands, DY5 1TB Tel: +44 (0) 121 550 9430

Email: enquiries@diamondcoatings.co.uk
Web: www.diamondcoatings.co.uk

### DIAMOND COATINGS INC.

1428 N Horne St Suite 130, Gilbert, Arizona, 85233

Tel: +1 (480) 999 3456

Email: sales@diamondcoatings.com Web: www.diamondcoatings.com





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# **QUALITY ASSURANCE**

It is the objective of Diamond to produce coatings to high quality standards consistent with commercial product requirements and appropriate standards.

Diamond is registered to ISO 9001 and employs the practice of quality control throughout the manufacturing process.

Note: These are typical properties for reference only. For further requirements, please contact us.

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| Testing Result (100 Ohms/Sq - Thickness 0.125/175mm) |                               |         |                                       |  |
|--|-------------------------------|---------|---------------------------------------|--|
| Property   |                               | Units   | Data                                  | Test Method                              |
| 1  | Visible<br>Light Transmission | %       | ≥78                                   | Spectrophotometer                        |
| 2  | Hue (b value)                 | -       | 0≤b≤4                                 | Spectrophotometer                        |
| 3  | Haze                          | %       | ≤3.0                                  | Haze Meter                               |
| 4  | Thickness                     |         | 125micron (5 mil)<br>175micron (7mil) | Spiral Micrometer                        |
| 5  | Square Resistance             | ohm/sqm | 100-130                               | Four Probe Resistivity Meter             |
| 6  | Resistance<br>Uniformity      | %       | ≤7                                    | Four Probe Resistivity Meter             |
| 7  | Surface Free<br>Energy        | J.m.2   | ≥30                                   | Angle Contact Metering System            |
| 8  | Coating Adhesion              | %       | R≤2                                   | 250# Tape Tearing <u>For</u> Three Times |
| 9  | Heat Shrinkage MD             | %       | ≤1.5                                  | 120C *30min                              |
|  | TD                            | %       | ≤0.6                                  |  |
| 10   | Width                         | mm      | 600,900mm                             | Ruler                                    |
| 11   | Scratch                       | mm      | 0.05≤W≤0.08mm<br>L≤4 Judged as OK     | Visual Test                              |
| 12   | Concave-convex<br>Unevenness  | mm      | D≤0.3mm<br>Judged as OK               | Visual Test                              |

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