



# DuPont™ Pyralux® HXI

## Black Coverlay

### Flexible Circuit Materials

#### Product Description

DuPont™ Pyralux® HXI Black Coverlay features a matte black DuPont™ polyimide film for high performance applications where design aesthetics are critical. This product is coated on one side with a proprietary B-staged modified epoxy adhesive. Pyralux® HXI Coverlay can be used to encapsulate etched details in flexible and rigid-flex multilayer constructions for environmental protection and electrical insulation. Black coverlay is also commonly used to enhance circuit aesthetics and improve LED lighting controls in specialty applications.

#### Key Features and Benefits

- Uniform and color-stable matte black surface
- Provides best warpage performance and compatibility with laminates to enable high process yields
- Excellent bond strength to copper foil
- UL 94 VTM-0, UL File E161336
- Halogen free and RoHS Compliant

#### Packaging

DuPont™ Pyralux® HXI Black Coverlay is supplied as 200 linear meter (656 ft) rolls in widths of either 249 mm (9.8 in) or 500 mm (19.7 in).

#### Storage Conditions and Warranty

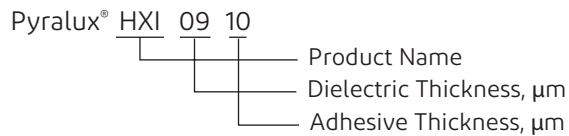
Pyralux® HXI Black Coverlay requires refrigeration and should be stored below 10 °C (50 °F) and below 65% humidity. The product should not be frozen and should be kept dry, clean, and well-protected. If stored properly, this product should retain its original properties for normal usage within 4 months from the production date. If the above recommended storage conditions have been deviated from, an examination and small scale evaluation should be performed prior to committing to large scale production.

Subject to compliance with the foregoing handling and storage recommendations, DuPont's warranties shall remain in effect for the period provided in the DuPont Standard Conditions of Sale.

Table 1 - Standard Pyralux® HXI Black Coverlay Offerings

Product Code	Dielectric Thickness µm (mil)	Adhesive Thickness µm (mil)
HXI0910	9 (0.35)	10 (0.40)

#### Product Code Key



#### Processing

Lamination conditions for DuPont™ Pyralux® HXI flexible circuit materials are typically:

- Part Temperature: ..... 180 °C (356 °F)
- Pressure: ..... 100 kg/cm<sup>2</sup> (1400 psi)
- Time: ..... 60 seconds, at temperature
- Post Curing: ..... 160 °C (320 °F) for 60 minutes

Pyralux® HXI Black Coverlay processing guide available from your DuPont sales representative.

#### Safe Handling

Prior to handling, DuPont recommends referencing the Pyralux® Safe Handling Guide available at [pyralux.dupont.com](http://pyralux.dupont.com).

#### Quality and Traceability

DuPont™ Pyralux® Black HXI Black Coverlay is manufactured under a certified ISO9001:2015 Quality Management System facility. Complete material and manufacturing records, which include archive samples of finished product, are maintained by DuPont. Each manufactured lot is identified for reference traceability. The packaging label serves as the primary tracking mechanism in the event of customer inquiry and includes the product name, batch number, size, and quantity.

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## Product Performance

**Table 2 - DuPont™ Pyralux® HXI Black Coverlay Properties**

Property	HXI09109 Typical Value	Test Method
Gloss (GU) at 60°	25	Gloss Meter
Color, L*	34.7	C.I.E
Peel Strength (Adhesion to Copper) As Received, N/mm (lb/in)	1.0 (14.0)	IPC-TM-650 2.4.9
Adhesive Resin Flow, mm (mil)	0.065 (2.6)	IPC-TM-650 2.3.17.1
Dimensional Stability (MD/TD)	± 0.1 %	IPC-TM-650 2.2.4
Solder Float, 288 °C for 10 s	Pass	IPC-TM-650 2.4.13

Data within this table are typical values for the listed product. Performance can vary depending on construction and processing.



[pyralux.dupont.com](http://pyralux.dupont.com)

For more information on Pyralux® HXI Black Coverlay or other DuPont products, please visit our website.

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. It may be subject to revision as new knowledge and experience becomes available. This information is not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. Since we cannot anticipate all variations in end-use and disposal conditions, DuPont makes no warranties and assumes no liability in connection with any use of this information. It is intended for use by persons having technical skill, at their own discretion and risk. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.

CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-5 and "DuPont Policy Regarding Medical Applications" H-50103-5.

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