

## Thermosetting Stretchable Film Part Number MUAS13111AA

# BEYOLEX™

### Product Description

Panasonic Beyolex™ film is a novel polymer substrate designed for flexible, stretchable, conformable and pliable printed electronics applications. This unique material is based on a proprietary, thermoset, non-silicone polymer system which provides outstanding performance.

### Features and Benefits:

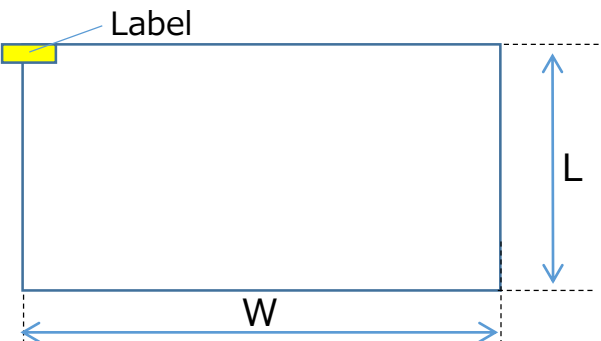
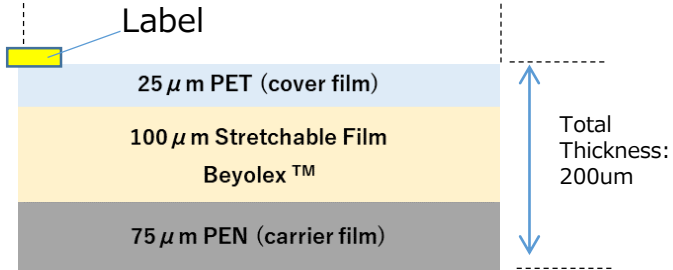
- Good Elongation
- Ultra Low Hysteresis
- High Temperature Resistance
- High Environmental Stability
- Compatible with wide variety of functional inks

### Typical Printed Electronic Applications:

- Sensors
- Health and Wellness
- Automotive
- Aerospace
- Structural Electronics



# Product Information

Part Number		MUAS13111AA
Type		Sheet
Size		210mm(L) x 300mm(W)
Number of sheets		5 Sheets/pkg
Structure	Top view	 <p>Label</p> <p>L</p> <p>W</p>
	Side View	 <p>Label</p> <p>25 <math>\mu</math> m PET (cover film)</p> <p>100 <math>\mu</math> m Stretchable Film Beyolex™</p> <p>75 <math>\mu</math> m PEN (carrier film)</p> <p>Total Thickness: 200<math>\mu</math>m</p>

- Please contact Panasonic on Custom sheets, and sizes including roll

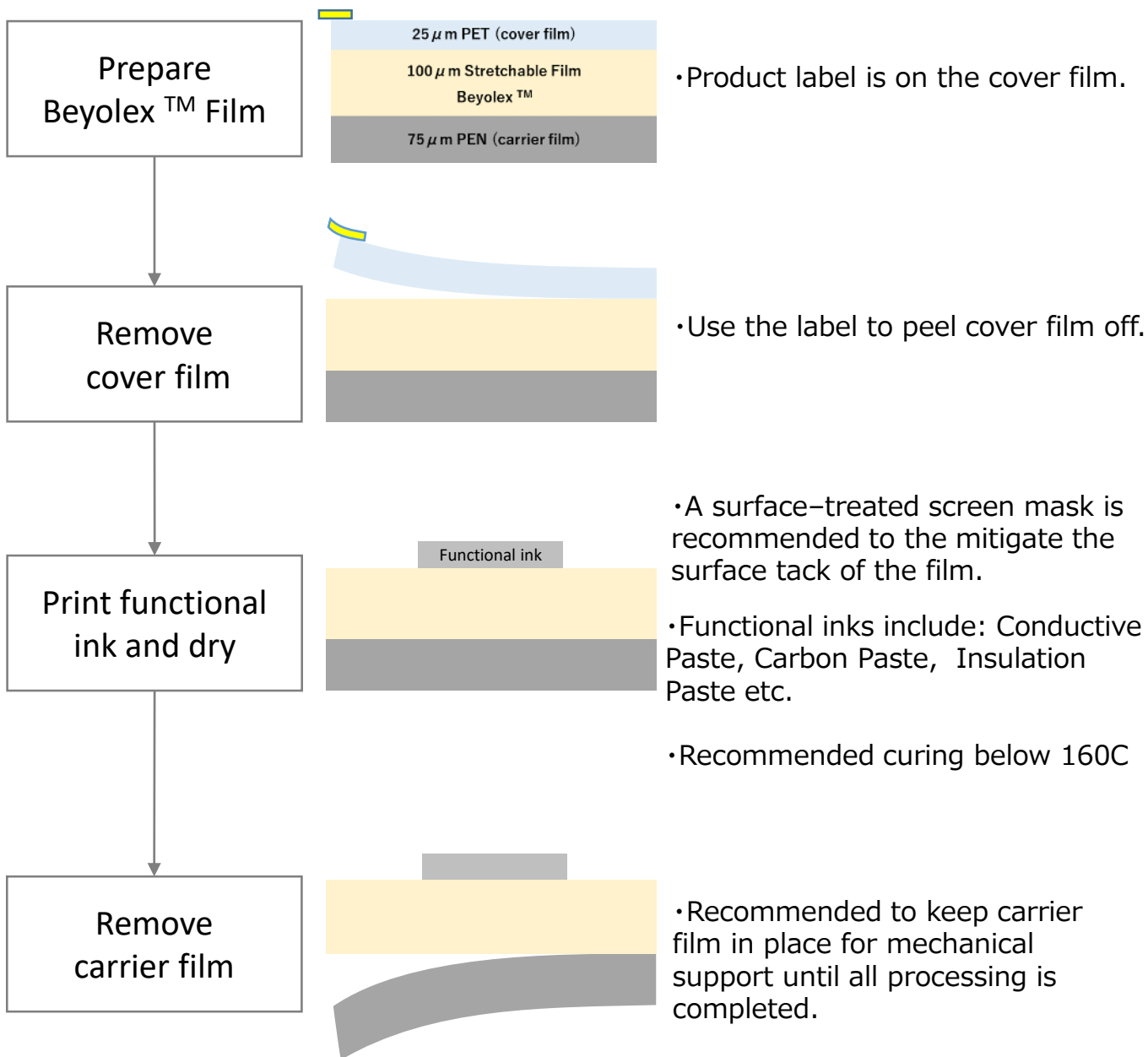


# Storage and Processing

## Storage

- Store this Product in clean, dry, indoor environment
- Maintain a temperature of  $<25^{\circ}\text{C}$

## Processing



## Typical Properties

Properties		Test Method*	Unit	Beyorex™
Elongation	Initial	ASTM D822	%	200 <
	Aft. High Temp. and High Humid. test**			200<
	Aft. Heat cycle***			200<
Modulus @50% strain	Initial	ASTM D822	MPa	< 2.5
	Aft. High Temp. and High Humid. test			< 2.5
	Aft. Heat cycle			< 2.5
Hysteresis	Initial	Panasonic Original	%	< 0.1
	Aft. High Temp. and High Humid. test			< 0.1
	Aft. Heat cycle			<0.1
Heat Resistance		TG/DTA (@Air) /5% weight loss	℃	302
Breakdown voltage		IEC 60243-1	KV/mm	98
Dielectric Property(Dk/Df)		IPC TM650 2.5.5.10	@10GHz	2.8/0.052
			@2GHz	3.3/0.073
Transparency		ISO 13468-1	%	>90
Stretch Cycle		50% stretch	cycle	>10000

\*Measurement are compliant with the standards other than Panasonic's original test

\*\*Test Condition : 85℃ / 85%RH / 1000h

\*\*\*Test Condition : -55℃(5min) ↔ 125℃(5min) / 1000cyc

- The values in this document are representative measured properties and not specifications or guarantees of performance

## Disclaimers

Panasonic Beyolex™ Part Number MUAS13111AA (“Product”) is provided strictly on an as-is basis. No warranty shall be given by Panasonic with regard to the Product, including, but not limited to the quality, safety, fitness for a particular purpose, merchantability, or compatibility with other materials and devices. Panasonic shall have no obligation, liability or responsibility to you or any third parties/individuals for any damage arising out of or incurred in relation to the Product.

Please consult with Panasonic before specifying or qualifying the Product for any commercial applications. Warrantees may be provided for specific customer and application usage on a case-by-case basis after consultation and approval from Panasonic.

## Usage Policy

The use of the Panasonic Products for weapons of mass destruction (including missiles, chemical weapons, biological weapons, nuclear weapons) is strictly prohibited.

Please contact us firstly if you intend to use the Product for any applications of (i) aerospace usage including aircraft and spacecraft; (ii) weapon or other military usage; or (iii) the medical instruments or products that are applied to human body.

Panasonic will conduct the preliminary review in accordance with our company policy before we decide to start the supply of the Product.

## Contact Information

For more information on how Panasonic can assist you with your application needs, contact your local authorized Panasonic Representative

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