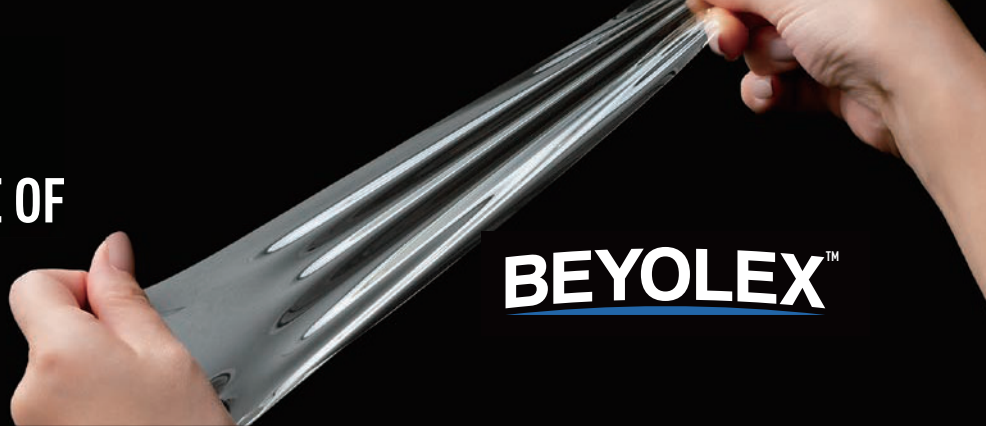
Panasonic

STRETCHING THE FUTURE OF ELECTRONIC MATERIALS



BEYOLEX™ Thermosetting Stretchable Film

This novel polymer substrate is designed for flexible, stretchable, conformable and pliable printed electronics applications. It is a unique material 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

Typical Properties

Properties		Test Method*	Unit	BEYOLEX™
Elongation	Initial	ASTM D822	%	> 200
	Aft. High Temp & High Humid Test **			> 200
	Aft. Heat Cycle ***			> 200
Modulus @ 50% Strain	Initial	ASTM D822	MPa	< 2.5
	Aft. High Temp & High Humid Test **			< 2.5
	Aft. Heat Cycle ***			< 2.5
Hysteresis	Initial	Panasonic Original	%	< 0.1
	Aft. High Temp & High Humid Test **			< 0.1
	Aft. Heat Cycle ***			< 0.1
Heat Resistance		TG/DTA (@Air)/ 5% weight loss	°C	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			%	> 90
Stretch Cycle		50% stretch	cycle	> 10,000

* Measurements are compliant with the standards other than Panasonic's original test
** Test Condition : 85°C / 85%RH / 1000h
*** Test Condition : -55°C(5min) ↔ 125°C(5min) / 1000cyc

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

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