

STRETCHING THE FUTURE OF ELECTRONIC MATERIALS



Thermosetting Stretchable Film – in development

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	Material
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	°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	>10000

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*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

Disclaimer

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