

AUTOSTAT WT

Product Data Sheet

White, pre-primed polyester film with low residual heat shrinkage

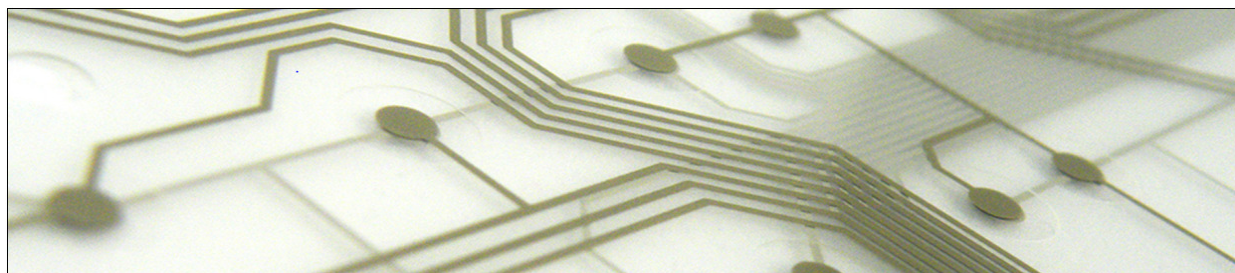


DESCRIPTION

The **Autostat** range of polyester* films are heat-stabilised to give low residual shrinkage at elevated temperatures. This is essential when tight registration tolerances need to be maintained during multiple printing operations.

Autostat WT is a high quality, opaque white heat stabilised polyester film, with an ink primer coating on both sides. It is available in sheets and rolls, with tight dimension and squareness tolerance, and excellent lay flat for accurate print registration.

Applications include: flexible circuitry, membrane switch circuitry, flexible flat cables, sensors and RFID antennae. The thicker versions are typically used for biomedical diagnostic strips for personal, near-patient and point-of-care testing.



PRODUCT RANGE

Product	Gauge	Version
Autostat WT – opaque white, pre-primed polyester film with low residual shrinkage at elevated temperatures	75 µm	WT3
	125 µm	WT5
	250 µm	WT10
	350 µm	WT14

PRIMER

Autostat WT has an ink adhesion primer on both surfaces.

The primer offers excellent adhesion to a wide range of solvent and UV inks, particularly conductive and dielectric inks, but it is recommended that the customer verifies that the adhesion of their own ink is fit for purpose.



TYPICAL PROPERTIES

Property	Typical Value	Test Method
Whiteness (Berger) ¹	110 - 120	ASTM E313
Gloss level ¹	45 – 50 Gloss Units	ASTM D2457 (modified to test method 022)
Transparency ¹	8 - 13%	ASTM D1003
Roughness (R _a) ¹ WT10 and WT14	50nm	DIN4768
Tensile strength at break ¹ WT3 WT5 WT10 WT14	150 - 190 N/mm ² 147 – 176 N/mm ² 150 – 170 N/mm ² 130 – 140 N/mm ²	ASTM D882
Dielectric constant ¹ WT3 WT5	3.3 2.6	ASTM D150
Dimensional stability ^{2,3} (Thickness ≤75µm)	MD ± 0.5% max @ 150°C/30minutes TD ± 0.1% max @ 150°C/30 minutes	Test method 094
Dimensional stability ^{2,3} (Thickness ≥125µm)	MD ± 0.2% max @ 150°C/30 minutes TD ± 0.08% max @ 150°C/30minutes	
Dimensional stability ^{2,3} (Thickness ≥250µm)	MD ± 0.2% max @ 150°C/30 minutes TD ± 0.1% max @ 150°C/30minutes	
Thickness all grades ¹	Nominal ±5%	Test method 096
Recommended maximum processing temp.	150 °C	Test method 012
Chemical resistance	Chemical resistance of polyester is generally good but has not been extensively tested for circuitry applications	

¹ Data derived from base film manufacturer's literature

² Specification value

³ For details of test method, please contact MacDermid Autotype

*The term polyester is the generic term for several different polymers, of which polyethylene terephthalate (PET) is the most common. PET is used in MacDermid Enthone Industrial Solutions polyester products.

Note – Performance characteristics may be subject to change

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CONTACT INFORMATION

To confirm this is the most recent issue, please contact MacDermid Autotype

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