

AUTOTEX STEEL

Textured Hardcoated Polyester Film

PRODUCT DESCRIPTION

Autotex Steel is a high quality textured hardcoat polyester* film, for applications requiring a combination of high abrasion resistance and flexibility such as embossed membrane switches. **Autotex Steel** gives a stainless-steel look when printed with metallic ink and can also give an effective woodgrain appearance.

Autotex Steel is available in sheets and rolls. Note that in the roll format, the steel grain runs in the machine direction – that is, parallel to the length of the roll.



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

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

PRODUCT RANGE

Product	Finish	Gauge	
		150 µm	200 µm
Autotex Steel with 0-series ink primer for solvent based screen printing inks and UV cured digital	Steel	S150	S200
Autotex Steel with 3-series ink primer for UV cured inkjet, UV cured screen printing and solvent based screen printing inks	Steel	S153	S203

TYPICAL PROPERTIES

Property	Typical Value	Test Method
Haze ¹	50% ± 5%	ASTM D1003
Total luminous transmission ¹	92% ± 2%	ASTM D1003
Gloss level (60°) ¹ with the grain (MD) against the grain (TD)	25 to 30 GU 8 to 10 GU	ASTM D2457 (Modified to test method 022)
Yellowness index ³	< 3	ASTM E313
Hardcoat adhesion ³	Pass	Test method 080
Switch life ¹	> 5 million actuations	Test method 003
Tensile strength at break ²	172 N / mm ²	ASTM D882
Breakdown voltage ² 150 μ 200 μ	16 to 18 kV 18 to 20 kV	ASTM D149
Dimensional stability ³	0.2% max. shrinkage MD at 120 °C	Test method 094
Thickness all grades ¹	Nominal ± 10%	Test method 096
Maximum processing temperature	120 °C	-
Maximum use temperature ¹	Low humidity (< 10% RH) 85 °C High humidity (10-95% RH) ≤ 60 °C	Test method 012
Minimum use temperature ¹	-40 °C (-40 °F)	Test method 012
Chemical resistance	Excellent resistance to many common industrial solvents and household chemicals - please see Autotex Solvent Resistance Data Sheet	

Note: All evaluation results are obtained from lab produced samples at MacDermid Alpha Electronics Solutions. They are for general guidance only and do not represent the final product's properties.

¹ For details of test method, please contact MacDermid Alpha Electronics Solutions

² Data derived from base film manufacturer's literature. The coating slightly enhances most properties

³ Specification value

PRIMER

Autotex Steel has an ink adhesion primer on the second surface. Two versions are available:

The standard 0-series ink-receptive coating for solvent based screen printing inks. This primer has also been used successfully with some digital UV inkjet printers. Please contact MacDermid Alpha Electronics Solutions for more information.

The 3-series primer is for use with UV curable inkjet inks, solvent based screen printing inks and UV screen printing inks.

MIRROR INKS

We have found that some mirror screen printing inks can be more brittle than graphic inks and, for this reason, we recommend that customers perform their own printing trials and in-house evaluations. 0-series ink primer is particularly good for creating blemish free prints with mirror inks.

WINDOWS

Autotex Steel can be screen printed with Windotex windowing lacquers to obtain a clear window. The cosmetic quality of the printed window can be affected by the steel finish, i.e. where there are deep lines in the texture these may be seen in a printed window. Special printing guidelines are available in the Windotex Processing and Safety Recommendations.

SHELF LIFE & STORAGE CONDITIONS

The recommended shelf life is 36 months from the date of manufacture. MacDermid Alpha Electronics Solutions guarantees a minimum remaining shelf life of 8 weeks at the time of despatch.

The recommended shelf life represents the maximum processing lifetime of the product from the date of manufacture when stored correctly and in unopened packaging.

The following storage conditions are recommended:

Storage Conditions	
Temperature	15 to 25 °C
Relative Humidity	50 to 65%
Packaging	Store in original protective packaging Once the packaging has been opened, the processing lifetime can be compromised due to air ingress, contamination or UV light
Moisture	Store away from water sources
Chemicals	Keep away from aggressive solvents

IMDS ID-No

By arrangement with our regulatory affairs team.

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

Safety Data Sheets are available.

WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

CONTACT INFORMATION

To confirm this document is the most recent version, please contact

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US +1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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