

AUTOFLEX EB

Hardcoated Polyester Film

PRODUCT DESCRIPTION

Autoflex EB is a high quality hardcoated polyester* film, consisting of a base polyester and an embossable, texturable, chemically bonded, UV cured, hard surface coating in gloss or antiglare finish.

Autoflex EB is available in sheets and rolls.



* 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	Base	Gauge		
		130 µm	180 µm	250 µm
Autoflex EB with 0-series ink primer for solvent based screen printing inks	Gloss	EBG130	EBG180	EBG250
	Antiglare	EBA130	EBA180	EBA250
Autoflex EB with 3-series ink primer for UV cured inkjet, UV cured screen printing and solvent based screen printing inks	Gloss	EBG133	EBG183	EBG253
	Antiglare	EBA133	EBA183	EBA253
Autoflex B non-primed for ITO sputtering**	Gloss	EBG130 NP	EBG180 NP	-
	Antiglare	EBA130 NP	EBA180 NP	-

**NP grades are not standard. Please contact MacDermid Alpha Electronics Solutions to check the availability

TYPICAL PROPERTIES

Property	Typical Value	Test Method
Haze ¹ Gloss Antiglare	< 2% 9.8% ± 3% for 130 and 180 µm 10.8% ± 3% for 250 µm	ASTM D1003
Total luminous transmission ¹	91% ± 2%	ASTM D1003
Gloss level (60°) ¹ Gloss Antiglare	96 ± 2 GU 50 ± 5 GU	ASTM D2457 (modified to test method 022)
Yellowness index ³	< 3.5	ASTM E313
Taber abrasion ¹ Gloss Antiglare	< 5% N/A	Test method 103
Hardcoat Adhesion ³	Pass	Test method 080
Switch life ¹	> 5 million actuations	Test method 003
Pencil hardness ⁴	2 to 3H	Test method 058
Tensile strength at break ²	172 N / mm ²	ASTM D882
Breakdown voltage ^{2,5} 130 µm 180 µm 250 µm	17 to 18 kV 19 to 20 kV 22 kV	ASTM D149
Dimensional stability ³	Maximum shrinkage @120 °C 0.08% TD, 0.2% MD	Test method 094
Thicknesses all grades ¹	Nominal ± 10%	Test method 096
Maximum processing temp	120 °C	-
Maximum use temp ¹	Low humidity (<10%RH) 85 °C	Test method 012
	High humidity (10-95%RH) 60 °C	
Minimum use temp ¹	-40 °C (-40 °F)	Test method 012
Chemical resistance	Excellent resistance to many common industrial solvents and household chemicals - please refer to Autoflex EB 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

³ Specification value

⁴ For more information, please refer to MacDermid Alpha Electronics Solutions' statement on pencil hardness testing

⁵ Thick PET, including 250µm films typically melts at high applied voltages

PRIMER

Autoflex EB has an ink adhesion primer on the second surface:

The standard 0-series ink-receptive coating is suitable for solvent based screen printing inks.

The 3-series primer has a more universal application and is suitable for a wide range of UV curable digital and screen inks as well as solvent based screen printing inks.

Please contact MacDermid Alpha Electronics Solutions for more information and request the 3-Series primer technical data sheet.

TEXTURES

Autoflex EB can be screen printed on the hardcoat surface with Fototex to obtain selective textures (see Fototex Technical Data Sheet).

LAMINATE

Polyester films with high gloss surfaces are prone to blocking when stored with the film surfaces touching each other. Blocking is the term given when two surfaces adhere or merge into each other and when separated leave permanent marks on the film. MacDermid Alpha Electronics Solutions supply the **Autoflex EB** film range with a protective laminate on the ink primer surface and recommend that the laminate remains in place until the first ink print pass. 2L and hardcoat laminate versions may be available upon request.

SHELF LIFE & STORAGE CONDITIONS

The recommended shelf life is 36 months from the date of manufacture. MacDermid 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
Stacking	For material $\leq 250 \mu\text{m}$ thick, 100 sheet packs should be stacked no more than 10 packs high

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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