

Autoflex

MacDermid
Autotype
A Platform Specialty Products company

Autoflex EB Product Data Sheet

Hardcoated polyester film

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 a number of different polymers, of which polyethylene terephthalate (PET) is the most common. PET is used in MacDermid Autotype Industrial Polyester film products.

Autoflex EB Version	Finish	Gauge		
		130µm	180µm	250µm
Autoflex EB with 0-series ink primer for solvent based screen printing inks	Gloss	G130	G180	G250
	Antiglare	A130	A180	A250
Autoflex EB with 7-series ink primer for UV screen and solvent screen printing inks	Gloss	G137	G187	-
	Antiglare	A137	A187	-
Autotex EB non-primed for ITO sputtering†	Gloss	G130 NP	G180 NP	-
	Antiglare	A130 NP	A180 NP	-

† NP grades are not standard – please contact MacDermid to check availability

Primer:

Autoflex EB 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. The primer has also been used successfully with some digital UV inkjet printers. Please contact MacDermid for more information.

The 7-series primer offers excellent adhesion to a wide range of solvent based screen printing inks and UV screen printing inks.

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. For this reason, MacDermid supplies the Autoflex 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.

Textures:

Autoflex EB can be screen printed with Fototex to obtain selective textures (see Fototex Product Data Sheet).

Typical Properties			
Property	Autoflex EB	Test Method	
Haze ¹	Gloss Antiglare	<2% 9% ± 2%	ASTM D1003
Total luminous transmission ¹		91% ± 2%	ASTM D1003
Gloss level (60°) ¹	Gloss Antiglare	96 ± 2 56 ± 2	ASTM D2457
Yellowness index ¹		<3.5	ASTM E313
Taber abrasion ¹	Gloss Antiglare	<5% haze N/A	ASTM D1044-82 100 cycles, 500g load CS10F wheels
Switch life		>5 million actuations	MacDermid method
Pencil hardness		2 - 3H	JIS K5600 Mitsubishi pencils
Tensile strength ²		172 N/mm ²	ASTM D2457
Breakdown voltage ²	130µm 180µm 250µm ³	17 - 18 kV 19 - 20 kV 22 kV	ASTM D149
Dimensional stability ¹		<0.2% max shrinkage MD at 120 °C	MacDermid method
Thicknesses		Nominal ± 10%	
Max processing temp.		120 °C	
Maximum use temp ¹		Low humidity (<10%RH) 85 °C High humidity (10-95%RH) ≤ 60 °C	MacDermid method
Minimum use temp. ¹		-40 °C (-40 °F)	MacDermid method
Chemical resistance		Alcohols Dilute Acids and Alkalis Esters Hydrocarbons Ketones Household Cleaning agents	DIN 42 115 Please refer to Autoflex EB Solvent Resistance chart

¹ Test method adapted to MacDermid method

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

³ Thick PET, including 250µm films typically melts at high applied voltages

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