

AUTOFLEX PC

Product Data Sheet

Hardcoated Polycarbonate Film



PRODUCT DESCRIPTION

Autoflex PC is a high quality, hardcoated polycarbonate, consisting of a base polycarbonate film coated with a chemically bonded, UV cured, hard surface coating in a gloss or antiglare finish.

Autoflex PC was developed for applications where the rigidity and clarity of thick gauge polycarbonate is required along with an abrasion and chemically resistant surface.

Autoflex PC is available in sheets and rolls.



PRODUCT RANGE

Product	Finish	Gauge			
		180 µm	250 µm	380 µm	480 µm
Autoflex PC	Gloss	PCG 180L	PCG 250L	PCG 380 2L	PCG 480L PCG 480 2L
	Antiglare	PCA 180L	PCA 250L	PCA 380L	PCA 480L PCA 480 2L



TYPICAL PROPERTIES

Property	Typical Value	Test Method
Haze ¹ Gloss Antiglare	< 0.3% 10.8% ± 3%	ASTM D1003
Total luminous transmission ¹	92% ± 2%	ASTM D1003
Gloss level (60°) ¹ Gloss Antiglare	93 ± 2 50 ± 5	ASTM D2457 (modified to test method 022)
Yellowness index ³	< 2	ASTM E313
Taber abrasion ¹ Gloss Antiglare	< 5% N/A	Test method 103
Hardcoat Adhesion ³	Pass	Test method 080
Pencil hardness ⁴	HB	Test method 058
Tensile strength at break ²	≥ 60 N / mm ²	ASTM D882
Breakdown voltage ² 250µm	67 kV / mm	ASTM D149
Dimensional stability ³	0.2% @ 135 °C MD maximum shrinkage	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	Good hardcoat resistance to many common industrial solvents and household chemicals Please refer to Autoflex PC Solvent Resistance Data Sheet	

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

¹For details of test method, please contact MacDermid Enthone Industrial Solutions

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

³Specification value

⁴For more information, please refer to MacDermid Enthone Industrial Solutions statement on pencil hardness testing



PRIMER

Autoflex PC does not require an ink adhesion primer on the second surface. Please ensure that inks are selected that are compatible with polycarbonate.

TEXTURES

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

LAMINATE

Polycarbonate 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 Enthone Industrial Solutions supplies the **Autoflex PC** film range with a protective laminate on the print surface and recommend that the laminate remains in place until the first ink print pass.

SHELF LIFE & STORAGE CONDITIONS

The recommended shelf life is 36 months from date of manufacture. MacDermid Enthone Industrial Solutions guarantee a minimum remaining shelf life of 8 weeks at the time of despatch.

The recommended shelf life represents the maximum processing life time 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 °C 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

MacDermid Enthone Industrial Solutions recommends 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 from MacDermid Enthone Industrial Solutions.

WASTE TREATMENT

Prior to using any recommendations or suggestions by MacDermid Enthone Industrial Solutions 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 is the most recent issue, please contact us:

IndustrialFilms@macdermidenthone.com

Americas 245 Freight Street Waterbury, CT 06702, USA (800) 323 0632	Europe & rest of the world Grove Road, Wantage, Oxon OX12 7BZ, UK +44 (0) 1235 771111	Asia 26 Tuas West Road Singapore 638382 +65 6862 3327
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Website: industrial.macdermidenthone.com

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Suggestions concerning working practices and procedures are based on the practices adopted by existing users of the products and are made in good faith. IT IS THE RESPONSIBILITY OF THE USER TO ENSURE THAT ALL RELEVANT HEALTH AND SAFETY LAWS AND REGULATIONS ARE COMPLIED WITH. MacDermid does not provide any advice on such laws and regulations and accepts no responsibility, express or implied, for breach of such regulations.

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