

AUTOFLEX PC

Product Data Sheet

Hardcoated Polycarbonate Film



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	PCG180 L	PCG250 L	PC G380 2L	PCG480 L PCG480 2L
	Antiglare	PCA180 L	PCA250 L	PC A380 L	PCA480 L PCA480 2L

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

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.



TEXTURES

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

TYPICAL PROPERTIES

Property	Autoflex PC	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	

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

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

³Specification value

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

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

<p>Americas 245 Freight Street Waterbury, CT 06702, USA (800) 323 0632</p>	<p>Europe & rest of the world Grove Road, Wantage, Oxon OX12 7BZ, UK +44 (0) 1235 771111</p>	<p>Asia 26 Tuas West Road Singapore 638382 +65 6862 3327</p>
---	---	---

Website: industrial.macdermidenthone.com

The information and recommendations in this publication are believed to be accurate and are offered in good faith. Suggestions concerning uses and applications are only the opinion of MacDermid Autotype Limited and/or its affiliates and related entities (referred to herein as "MacDermid") and users should carry out their own testing procedures to confirm suitability for their purposes. Except in case of death or personal injury caused by the materials, MacDermid MAKES NO WARRANTY OF ANY KIND AND EXCLUDES ANY STATUTORY WARRANTY EXPRESS OR IMPLIED other than that materials conform to their current applicable standard specifications. Statements herein therefore should not be construed as guarantees of satisfactory quality or fitness for purpose unless expressly prohibited by compulsory law provisions. The responsibility of MacDermid for claims arising out of breach of guarantee, negligence, strict liability or otherwise is limited to the purchase price of the material.

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.

WARNING: Nothing in this guide or in these technical specifications should be construed to imply or suggest that the user employ operations or create articles, which would infringe any patents belonging to third parties. It is the customer's responsibility to ensure that its operations, the conditions of processing, and articles of manufacture do not infringe the foregoing patents, or any third-party patents. MacDermid does not accept responsibility for any infringement of intellectual property rights of third parties.