



Technical Data Sheet

PERMAPRINT 2012

PERMACOLOR

The PERMACOLOR system is a series of pressure-sensitive products used for mounting and protecting in the photographic and graphic industries. Pressure-sensitive PERMACOLOR provides fast, efficient processing through roll lamination techniques without the need for heat or drying.

PRODUCT DESCRIPTION

PERMAPRINT 2012

- consists of a thin polyester film coated on both sides with an acrylic adhesive and protected each side with a calendered paper liner.
- has medium tack, medium adhesion and cohesion.
- is produced with two yellow calendered kraft paper liners.
- does not influence the pH level of substrate to which it is applied.

PHYSICAL PROPERTIES

	<u>Typical values</u>		<u>Test method</u>
	<u>End user</u>	<u>Converter</u>	
<u>Adhesive</u>			
Quick Tack on glass (N/25 mm)	13.5	13.5	FTM 9
Peel 180° on glass (N/25 mm)			
- after 20 minutes	8	9.5	FTM 1 (ASTM D 903-49)
- after 24 hours	14	16	FTM 1 (ASTM D 903-49)
Shear on glass (hours) 1 kg - 25 mm x 25 mm	50	50	FTM 8
<u>Carrier data</u>			
Thickness (μ)	12		ISO 534 (ASTM D 645)
Tensile strength (N/15 mm)	MD ≥ 20 CD ≥ 25		DIN 53455
Elongation (%)	MD ≤ 30 CD ≤ 35		DIN 53455
Tear strength (gr)	MD ≥ 8 CD ≥ 8		
<u>Release liner</u>			
Yellow kraft paper (gr/sqm)	90		ISO 536
<u>Thickness</u>			
Carrier + adhesive (μ)	60		ISO 534 (ASTM D 645)

HEAT RESISTANCE

Application temperature range : + 5°C to + 40°C

End-use temperature range : - 30°C to + 90°C

For temperatures outside those quoted above, please consult with MACtac.

CHEMICAL RESISTANCE

Resistant to short contact with water, detergents, alcohol and some aliphatic solvents.

Not recommended for use in contact with ketones, esters, aromatic and chlorinated hydrocarbons.

For further technical advice, please consult with MACtac.

SHELF LIFE

2 years when stored at 15 to 25°C and ± 50 % relative humidity.

DURABILITY

PP 2012 will give satisfactory performance up to 2 years.

The durability does not relate to image mounted but only to the mounting film.

Note : *These end-use life estimates are based on accelerated ageing studies and outdoor exposure, under conditions experienced in vertical exposure and in "normal" temperate climates. Exposure to severe humidity and ultraviolet light, as in southern European countries, and also in tropical, sub-tropical or desert regions, will cause a more rapid deterioration. This also applies to polluted areas, high altitude and south-facing exposure.*

RECOMMENDATIONS

- When using **PP 2012** onto polycarbonate, polystyrene, polymethyl-methacrylate substrates, it is recommended to conduct compatibility tests in normal use conditions. These types of panels tend to « degas » when exposed to temperature, creating bubbles and/or tunnels between the panels and the mounting film. Conditioning these panels overnight in a room above 60°C before mounting helps prevent damage occurring.
- Paper tends to expand when exposed to high humidity levels. The problem is more pronounced in proportion to the increased dimensions of the paper. Therefore, for large format image work, this may result in tunnelling between the mounting film and the image, therefore affecting the appearance.

To avoid this problem, it is advised :

1. To condition the paper at a relatively high humidity level 24 hours before mounting.
2. To laminate the image with PERMAGARD PG 7286 (2 m wide)(clear matt PVC) and overlap or seal the edges.

IMPORTANT NOTICE

All MACtac products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects.

Published information concerning MACtac products is based upon research which the Company believes to be reliable although such information does not constitute a warranty.

Because of the variety of uses of MACtac products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. The seller shall not be liable for damages in excess of the purchase price of the product nor for incidental or consequential damages.

All specifications are subject to change without prior notice.