Technical Data Sheet

PERMAPRINT 2011 M

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 2011 M

- consists of a thin polyester film coated on both sides with a solvent acrylic adhesive.
- has medium tack, medium adhesion and high cohesion.
- is produced with a white moisture stable paper liner.
- does not influence the pH level of substrate to which it is applied.

PHYSICAL PROPERTIES

	Typical values		Test method
	End user	Converter	
Adhesive			
Quick Tack on glass (N/25 mm)	11	9	FTM 9
Peel 180° on glass (N/25 mm)			
- after 20 minutes	10	8	FTM 1 (ASTM D 903-49)
- after 24 hours	11	11	FTM 1 (ASTM D 903-49)
Shear on glass (hours) 1kg – 25mm X 25mm	>1000	>1000	FTM 8
Carrier data			
Thickness (µ)	12		ISO 534 (ASTM D 645)
Tensile strength (N/15 mm)	MD ≥ 25 CD ≥ 27		DIN ISO 527-3
Elongation (%)	MD ≥ 60 CD ≥ 60		DIN ISO 527-3
Tear strength (gr)	MD ≥ 8 CD ≥ 8		
Release liner			
White moisture stable paper (gr/m²)	120		ISO 536
Thickness			
Carrier + adhesive (µm)	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 MACtac.

CHEMICAL RESISTANCE

Resistant to 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 MACtac.

SHELF LIFE

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

EXPECTED DURABILITY

The expected vertical outdoor durability of the unprocessed product in Central Europe (Zone 1) is up to 5 years. This information is based on successful real life experience and artificial aging according to ISO 4892-2.

Note *: Exposure to severe temperatures, ultra-violet light as well as conditions in Southern European countries, tropical, sub-tropical or desert regions will cause more rapid deterioration. This also applies to polluted areas, high altitude and south facing exposure. No durability warranty is given for horizontal exposure. For more information, please refer to Technical Bulletin 7.5: "Outdoor Durability of combined MACtac print media and laminates".*

RECOMMENDATIONS

- When using **PP 2011 M** 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. For more information, please refer to Technical Bulletin 7.2 "Mounting of inkjet prints on Acrylic or Polycarbonate Sheets".
- It is recommended to condition the paper image (more humid than dry) before mounting it to a board. This will avoid moisture re-absorption, which may cause the mounted paper image to swell and then cause a tunnelling effect between the mounting film and the paper image.

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 a LF or a PG overlay film 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.