

LUV 3990 series

IMAGin

The IMAGin products is a series of self-adhesives especially designed for overlaminating and protecting large and medium size digital prints. The LUV range of products has specifically been designed for the protection of digital UV prints. It is however also compatible with other standard digital printing techniques like SB, ecosolvent and latex.

PRODUCT DESCRIPTION

- LUV 3990 series are transparent soft 80 µ PVC coated on one side with a clear acrylic pressure sensitive adhesive. The adhesive is protected by a white, easy to remove paper liner.
- LUV 3999 has a glossy finish ; LUV 3998 has a matt finish.

LUV 3990 series of laminate

- reduce colour fade caused by ultraviolet (U.V.) light exposure
- enhance colours and glossiness of the UV prints
- protect the UV inks against abrasion, fingerprints etc
- have a high tack adhesive suitable for laminating both UV, SB, ecosolvent and latex digital prints
- do not influence the pH level of the substrate to which it is applied
- are not compatible with substrates printed with oil-based inks
- are designed for high profile applications over *flat to slightly curved (convex)* surfaces.

PHYSICAL PROPERTIES

	<u>Typical value</u>	<u>Test Method</u>
<u>Adhesive data, 23 °C</u>		
Quick Tack on glass (N/25 mm)	17	FTM 9
Peel 180° on glass (N/25 mm)		FTM 1
- after 20 minutes	17	FTM 1
- after 24 hours	20	
Shear (hours) 1kg- 25x25 mm	>1000	
Dimensional stability, % shrinkage, 48h at 70°C on aluminium	<0.3	FTM 14 Sample mounted on aluminium
Flammability	Self-extinguishing	
<u>Release liner</u>		
White kraft paper (g/m2))	100	ISO 536
<u>Thickness</u>		
Film + adhesive (µm)	110	ISO 534 (ASTM D 645)

HEAT RESISTANCE

Application temperature range : + 5°C to + 40°C
 End-use temperature range : - 30°C to + 60°C

For temperatures outside those quoted above, please consult MACtac.

CHEMICAL RESISTANCE

Resistant to short periods of immersion in water and short contact with detergents, alcohol and some aliphatic solvents. Not recommended for contact with ketones, esters, aromatic solvents 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 ISO4892-3.

Indoor exposure will increase the durability values of the laminating film.

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

- Where exposure to chemicals, solvents or high pressure water hoses is envisaged, it is recommended to seal the edges of the prints with varnish or silicone in order to avoid penetration of these liquids.
- Where possible, always test the proposed construction under actual application and end-use conditions because a 100% multi-purpose adhesive for all substrates does not exist.
- When laminating LUV 3990 series onto UV prints, set the temperature of the laminator to ~40-50°C to eliminate risks of silvering.
- The use of flat bed laminator is not recommended to laminate UV prints as the pressure is not sufficient to avoid silvering.

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.