



Technical Data Sheet

LUV 3599

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 3599

- is a clear gloss, soft 60 µm highly conformable PVC film coated on one side with a clear permanent adhesive. The adhesive is protected with an easy to remove liner.
- is suitable for internal and external applications
- helps retards the colour fade caused by ultra-violet (U.-V.) light exposure.
- does not influence the pH level of the substrate to which it is applied
- is especially designed for the protection of super soft, flexible printed media like JT 5529 P/PM, JT 5599 P or JT 5629 PM for the decoration of flat, riveted or corrugated surfaces. Cutting around deep corrugations is always recommended.
- The combination of LUV 3599 and JT 5529 MBF can also be used but is more adapted for flat and curved surfaces.
- is therefore designed for the total coverage of cars. Use the dry method. In order to prevent any lifting in corrugations, it is essential to heat the film with a heat gun before and after application . Please consult our application guide for more details.
- For car wrap application, 3D highly stretchable UV inks should be used.

PHYSICAL PROPERTIES

	<u>Typical values</u>	<u>Test method</u>
<u>Adhesive data, 23°C</u>		
Quick Tack on glass (N/25 mm)	14	FTM 9
Peel 180° on glass (N/25 mm)		
- after 20 minutes	11	FTM 1
- after 24 hours	14	FTM 1
Dimensional stability, 48h at 70°C on aluminium	< 0.4%	FTM 14
Flammability	Self-extinguishing	Sample mounted on aluminium
Shear on glass (hours) 1 kg - 25 mm x 25 mm	1000	FTM 8
<u>Release liner</u>		
Kraft white paper (gr/sqm)	135	ISO 536
<u>Thickness</u>		
Film + adhesive (µ)	90	ISO 534 (ASTM D 645)

HEAT RESISTANCE

Application temperature range : on flat or curved surfaces + 10°C to + 40°C
on riveted or corrugated surfaces +40°C (with hot air gun)
End-use temperature range : - 30°C to + 100°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.

DURABILITY

LUV 3599 will give satisfactory performance up to 4 years of outdoor exposure depending on the geographical zone and exposure conditions.

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

The durability does not relate to the image protected but only to the laminating film.

Note : The use-life estimate is based upon accelerated age studies based on vertical application under "normal" temperate climates. Please note that exposure to severe temperatures, ultra-violet light and also 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.
- In order to reach the best result, it is recommended to apply IMAGin LUV 3599 (onto the image) with the help of a professional laminator with a top cylinder temperature of about 50 °C. Please regulate the speed and the pressure in order to avoid the film deterioration.
- Before laminating digital prints, please ensure the print is perfectly dry.
- **JT 5529 P/PM/MBF or JT 5629 P** laminated with **LUV 3599** can be rolled up to allow easy transport. The roll should have a diameter above 7 cm and the image should be facing outwards.
- **LUV 3599 is not recommended for the lamination of one way vision perforated vinyl**

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.*