

Technical Data Sheet

PERMAfun Crystal Gloss

PRODUCT DESCRIPTION

PERMAfun Crystal Gloss is a premium cast vinyl with high gloss and high concentration of light refracting additives. This film can be used indoor and outdoor, on the surface of your substrate for a glistening appearance, or as an overlaminating film to greatly enhance the colours of your high quality graphics.

This MACtac film is designed for high profile applications over *flat to slightly curved (convex)* surfaces and to create unique effects in eg fleet marking, logos, automotive, equipment identification, signs...

Crystal Gloss has a very high gloss finish; in order to retain the gloss level prior to application, it is supplied with its casting sheet. This sheet needs to be removed before application. Time of removal will depend on final application.

- Lamination of photos, application of Crystal gloss with a squeegee on flat surfaces : casting sheet can be removed after application;
- Car wrapping requires the applicator to remove the casting before using the product.

Face : glossy cadmium-free clear 60 µm cast vinyl **protected by its casting sheet**

Casting sheet : ~40 µm PET film that can be recycled

Adhesive : high performance permanent, clear solvent adhesive

Liner : 130g/m² white kraft liner for good stability and lay flat.

PHYSICAL PROPERTIES

	<u>Typical values</u>	<u>Test method</u>
<u>Adhesive</u>		
Quick Tack on glass (N/25 mm)	20	FTM 9
Peel 180° on glass (N/25 mm)		
after 20 minutes	18	FTM 1
after 24 hours	20	FTM 1
Dimensional stability (applied on aluminium)		FTM 14
- MD	<0.2%	
- CD	<0.2%	
Flammability	self-extinguishing	sample mounted on aluminium
<u>Thickness</u>		
Film + adhesive (µ)	100	ISO 534

HEAT RESISTANCE

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

End-use temperature range : - 45°C to + 100°C

For temperatures outside those quoted above, please consult MACtac.

SHELF LIFE

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

DURABILITY

PERMAfun Crystal Gloss will give satisfactory performance during 5 years outdoor. 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.

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.

APPLICATIONS

1) Used as a cut vinyl :

Application of PERMAfun Crystal Gloss when used as a cut vinyl is made easier if MACtac pre-spacing tape is used, or can be applied as an overlaminating film with a standard laminator (at room temperature). Where exposure to chemical and solvent spills are likely to occur, edge sealing of decals with a varnish or a clear coat is recommended. Correct varnishing of decals gives greater protection and longer end-use life against any prolonged effect of weathering, abrasion and other erosive effects such as frequent cleaning.

2) Used as an overlaminate for cars

- Directly on the car body : only on flat and slightly curved surfaces, with the dry method. To prevent lifting in the corrugations, it is recommended to cut the film and to apply it in the corrugation within any tension.
For more information, please refer to the application guide.
- In combination with Macal 9800 Pro: because this is a much thicker complex to apply, MACtac offers a limited warranty on flat to slightly curved surfaces. There is no warranty for PERMAfun Crystal Gloss on motor vehicle wrap, over rivets and corrugations, through complex surface or marine graphics.

3) Used as an overlaminate on prints : to create unique sparkling touch for luxury application segments ; only on flat to simply curved surfaces.

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.