

Technical Data Sheet

PERMAfun Leather

PRODUCT DESCRIPTION

PERMAfun Leather is a premium polymeric vinyl with a leather structure and a special adhesive which allows excellent adhesion on all kinds of inkjet digital inks, including UV ones. This film can be used indoor and outdoor, as an overlaminating film of the MACal 9800 Pro range to give the appearance of leather or on digital prints to give them a special texture. Used with well chosen visuals, it allows to create nice leather effects. This MACTac film is designed for high profile applications over *flat to slightly curved (convex)* surfaces and to create unique effects in eg interior design, hotel decoration ...

Face : satin, leather texture, cadmium-free clear 100 µm polymeric vinyl
 Adhesive : high tack, permanent, clear solvent adhesive
 Liner : 135g/m² clay coated white paper

PHYSICAL PROPERTIES

	<u>Typical values</u>	<u>Test method</u>
<u>Adhesive</u>		
Quick Tack on glass (N/25 mm)	15	FTM 9
Peel 180° on glass (N/25 mm)		
after 20 minutes	14	FTM 1
after 24 hours	18	FTM 1
Dimensional stability (applied on aluminium)		FTM 14
- MD	<0.4%	
- CD	<0.4%	
Flammability	self-extinguishing	sample mounted on aluminium
<u>Thickness</u>		
Film + adhesive (µ)	130	ISO 534

HEAT RESISTANCE

Application temperature range : 5°C to + 40°C
 End-use temperature range : - 45°C to + 70°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 Leather 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. No durability warranty is given for horizontal 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 Leather 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 40°C or more to avoid silvering). 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) In combination with coloured vinyls (Macal 9800PRO – MACal 8900PRO – MACal 8300PRO): 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 Leather on vehicle wraps, over rivets and corrugations, marine graphics or complex surfaces.

3) Used as an overlaminate on prints: to create unique leather texture for interior design applications ; 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.

Technical Data Sheet

PERMAfun Fine Grain Wood

PRODUCT DESCRIPTION

PERMAfun Fine Grain Wood is a premium polymeric vinyl with a fine grain wood structure and a special adhesive which allows excellent adhesion on all kinds of inkjet digital inks, including UV ones.

This film can be used indoor and outdoor, as an overlaminating film of the MACal 9800 Pro range to give them the appearance of plain wood. Used with well chosen digitally printed visuals, it allows to create very nice wood effects.

This MACTac film is designed for high profile applications over *flat to slightly curved (convex)* surfaces and to create unique effects in eg interior design, hotel decoration ...

Face : satin, fine grain wood texture, cadmium-free clear 100 µm polymeric vinyl

Adhesive : high tack, permanent, clear solvent adhesive

Liner : 135g/m² clay coated white paper

PHYSICAL PROPERTIES

	<u>Typical values</u>	<u>Test method</u>
<u>Adhesive</u>		
Quick Tack on glass (N/25 mm)	15	FTM 9
Peel 180° on glass (N/25 mm)		
after 20 minutes	14	FTM 1
after 24 hours	18	FTM 1
Dimensional stability (applied on aluminium)		FTM 14
- MD	<0.4%	
- CD	<0.4%	
Flammability	self-extinguishing	sample mounted on aluminium
<u>Thickness</u>		
Film + adhesive (µ)	130	ISO 534

HEAT RESISTANCE

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

End-use temperature range : - 45°C to + 70°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 Fine Grain Wood 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. No durability warranty is given for horizontal 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 Fine Grain Wood 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 40°C or more to avoid silvering). 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) In combination with coloured vinyls (Macal 9800PRO – MACal 8900PRO – MACal 8300PRO): 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 Fine wood grain on vehicle wraps, over rivets and corrugations, marine graphics or complex surfaces.

3) Used as an overlaminate on prints: to create unique wood texture for interior design applications ; only on flat to simply curved surfaces.

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Technical Data Sheet

PERMAfun Coarse Grain Wood

PRODUCT DESCRIPTION

PERMAfun Coarse Grain Wood is a premium polymeric vinyl with a Coarse Grain Wood structure and a special adhesive which allows excellent adhesion on all kinds of inkjet digital inks, including UV ones.

. This film can be used indoor and outdoor, as an overlaminating film of the MACal 9800 Pro range to give them the appearance of plain wood. Used with well chosen digitally printed visuals, it allows to create very nice wood effects.

This MACtac film is designed for high profile applications over *flat to slightly curved (convex)* surfaces and to create unique effects in eg interior design, hotel decoration ...

Face : satin, wood texture, cadmium-free clear 120 µm polymeric vinyl

Adhesive : high tack, permanent, clear solvent adhesive

Liner : 135g/m² clay coated white paper

PHYSICAL PROPERTIES

	<u>Typical values</u>	<u>Test method</u>
<u>Adhesive</u>		
Quick Tack on glass (N/25 mm)	15	FTM 9
Peel 180° on glass (N/25 mm)		
after 20 minutes	14	FTM 1
after 24 hours	18	FTM 1
Dimensional stability (applied on aluminium)		FTM 14
- MD	<0.4%	
- CD	<0.4%	
Flammability	self-extinguishing	sample mounted on aluminium
<u>Thickness</u>		
Film + adhesive (µ)	150	ISO 534

HEAT RESISTANCE

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

End-use temperature range : - 45°C to + 70°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 Coarse Grain Wood 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. No durability warranty is given for horizontal 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 Coarse Grain Wood 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 40°C or more to avoid silvering). 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) In combination with coloured vinyls (Macal 9800PRO – MACal 8900PRO – MACal 8300PRO): 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 Coarse wood grain on vehicle wraps, over rivets and corrugations, marine graphics or complex surfaces.

3) Used as an overlaminate on prints : to create unique wood texture for interior design applications ; only on flat to simply curved surfaces.

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Technical Data Sheet

PERMAfun Brushed Metal

PRODUCT DESCRIPTION

PERMAfun Brushed Metal is a premium polymeric vinyl with a satin fine brush structure and a special adhesive which allows excellent adhesion on all kinds of inkjet digital inks, including UV ones.

This film can be used indoor and outdoor, as an overlaminating film of the MACal 9800PRO range to give the appearance of brushed metal or on digital prints to give them a special texture. It can also be used to give a silk textile aspect to your visuals.

This MACTac film is designed for high profile applications over *flat to slightly curved (convex)* surfaces and to create unique effects in eg interior design, hotel decoration ...

Face : satin, brushed texture, cadmium-free clear 100 µm polymeric vinyl

Adhesive : high tack, permanent, clear solvent adhesive

Liner : 135g/m² clay coated white paper

PHYSICAL PROPERTIES

	<u>Typical values</u>	<u>Test method</u>
<u>Adhesive</u>		
Quick Tack on glass (N/25 mm)	15	FTM 9
Peel 180° on glass (N/25 mm)		
after 20 minutes	14	FTM 1
after 24 hours	18	FTM 1
Dimensional stability (applied on aluminium)		FTM 14
- MD	<0.4%	
- CD	<0.4%	
Flammability	self-extinguishing	sample mounted on aluminium
<u>Thickness</u>		
Film + adhesive (µ)	130	ISO 534

HEAT RESISTANCE

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

End-use temperature range : - 45°C to + 70°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 Brushed Metal 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. No durability warranty is given for horizontal 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 Brushed Metal 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 40°C or more to avoid silvering). 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) In combination with coloured vinyls (Macal 9800PRO – MACal 8900PRO – MACal 8300PRO): 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 Brushed Metal on motor vehicle wrap, over rivets and corrugations, through complex surface or marine graphics.

3) Used as an overlaminate on prints: to create unique silk or brush texture for interior design applications ; only on flat to simply curved surfaces.

IMPORTANT NOTICE

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