

Application Guidelines for **MetaWrap MD-X**

MetaWrap MD-X and MD-XB have been developed for full and partial vehicle wraps with recesses and compound convex curves. Successful vehicle wrapping requires the correct techniques learned through training and developed through experience to achieve the best results.

1. Choose the right MetaWrap for the vehicle.

- MD-X has an air-release feature supporting faster fitting and is suitable for modest recesses.
- MD-XB is suitable for deeper recesses – These include single recesses, L-shaped, which have a smaller radius, and double, U-shaped channels.
- MetaGuard X matched overlamine should always be applied for protection and MetaWrap films are mechanically matched and so handle correctly.

2. Always use the correct ICC Colour Profile.

- MetaWrap films are thin and may require lower ink levels than generic print media. Excessive solvents that result from incorrect profile usage can reduce ultimate adhesion levels by as much as 30% – this is critical in areas most under stress where full adhesion is needed.
- Profiles are available for download from www.metamark.co.uk/profiles

3. Always ensure that prints are fully out-gassed by drying unwound in well ventilated area.

- Allow a minimum of 48 hours for the solvents to out-gas before overlaminating and before application to the vehicle. Retained solvents, drying conditions and colour saturation can significantly reduce adhesion. Solid, saturated dark colours can require in excess of 48 hours.
- Store prints to allow air to circulate fully through the media. Leaving prints stacked, tightly rolled, or standing on end does not allow proper out-gassing.
- Apply a trial piece to check the print has out-gassed.

4. Always ensure the vehicle is cleaned meticulously.

- This is particularly important in the deepest part of recesses, any area where the media is under stress, and around edges. Vehicle Wrapping is only possible in a clean dry workshop environment, to allow the vehicle to be meticulously cleaned, achieve the right surface temperature, and to be completely dry.
- Clean initially with warm soapy water, followed by Metamark Adhesive Remover. Next use Metamark Surface Cleaner, finally clean with IPA using a lint free cloth.
- Repeat the clean around recesses and edges, and if the vehicle has been left for a while before fitting the printed film.
- Additional cleaning will be needed if the vehicle has been prepared with wax products, or if there is overspray of silicon based products used on trim.
- Pre Delivery Inspection (PDI) waxes can require additional cleaning to remove completely.
- See 'Vehicle Preparation Guide' for full cleaning details.

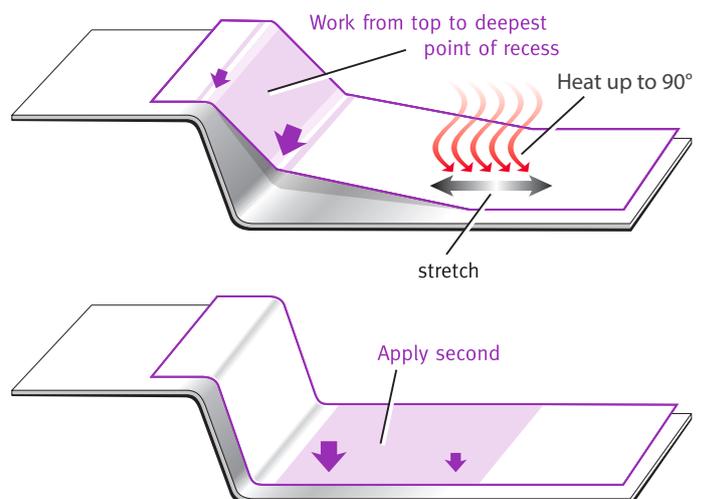
5. Always ensure the correct fitting temperature.

- The vehicle must be at 17-24°C, which can be done by putting a fan heater inside the vehicle (1). The vinyl should be at a similar temperature. The vehicle must be fully dry, and in a workshop environment.
- Apply the film with a dry method only. Any contaminants or moisture will weaken adhesion.
- Water-based vehicle paints will achieve lower ultimate adhesion.
- Primers may be used but users should determine suitability.

6. Technique for application into recesses.

- Recesses require that the film maintain its maximum adhesion in the deepest part of the recess as it is here that it is most under stress. The correct technique works film from surrounding areas under less stress using gentle uniform heat. Use firm pressure during application and rub down again afterwards.
- Do not over-stretch the media. Stretching the media by just 50% will thin the adhesive and can reduce adhesion levels by 35%.
- For double channels apply to each side in turn. As with single-channels, warm the area away from the recess to gain stretch. Do not push into the centre of the channel first, as this may lead to eventual failure.

SINGLE CHANNELS

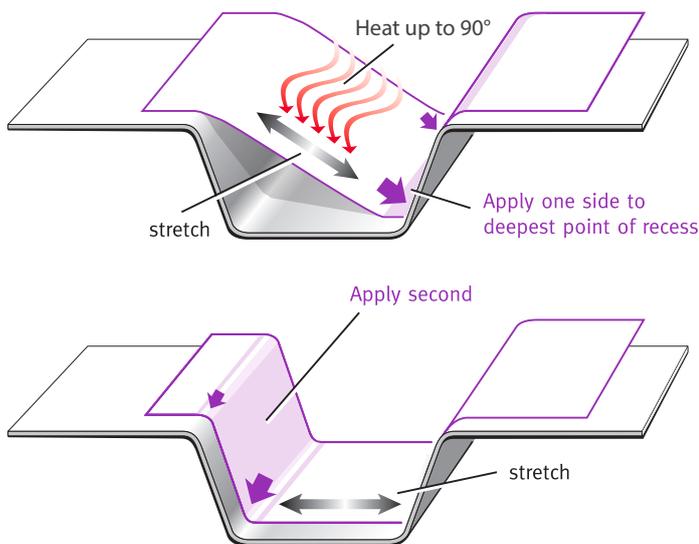


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7. Technique for application over convex curves.

- The correct technique pre-stretches the film on the convex area, working film from flatter areas under less stress whilst applying gentle uniform heat.
- Do not tension the film towards the edge of a convex curve or edge to remove excess as this could cause the film to pucker and eventually lift.

DOUBLE CHANNELS



8. Do not apply a vertical join in a recess.

- This will create a failure point. Use the full width of the media and design the panel with joints on the flat part of the van – design the panel in landscape to create more favourable application opportunities.
- Apply any joints such that the overlap faces downwards or away from the direction of vehicle travel.

9. Post-heat the film in recesses and on the edges.

- Ensure all air is absent from the vinyl / paint coated surface.
- Post heat the film in recesses and on the edges.
- Post heat (Super-heat) the film immediately after application to 100-105°C using a digital non-contact thermometer to measure the surface temperature.
- Post heating is vital to bond the adhesive fully to the vehicle and to recast the film.
- Do not return later to post-heat as the adhesive will have started to cure already and the bond strength will be significantly reduced.
- Over-heating can cause the adhesive to delaminate from the face film.

10. Removing entrapped air.

- Avoid entrapped air. Bubbles may be pricked to release air, but aim to make the incision on the flat part of the panel where the vinyl is under less stress.

Please note: These guidelines suggest the main points to be observed for producing a successful application with MetaWrap. The success of the application is ultimately determined by the skill of the installer – results therefore may vary and cannot be guaranteed.

(1) Use extreme caution. Not recommended if vehicle is ply lined. Avoid directed hot air contacting trim, plastics and upholstered surfaces, and trailing mains leads. Never leave unattended. Ensure adequate space around heater.

Metamark Vehicle Wrapping Course

Vehicle wrapping is growing in popularity and represents an attractive commercial opportunity for those with the skills needed to do the job.

Contact us to find out about our Vehicle Wrapping Course to gain real hands-on Wrap experience as well as top tips and tricks.

MetaSure Warranty

MetaWrap MD-X is covered by our MetaSure warranty programme. For data sheet and full warranty details please visit

www.metamark.co.uk/technical



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