#### 1. Important points

- For reliable results, JAC films are best applied to smooth, dry and clean surfaces (metal, glass, paintwork, plastic etc.).
- It is essential to ensure that the surface is free from dirt and other residues (e.g. polish, cleansing agents, preservatives, grease, silicone etc.).
- Do not use aggressive cleansing agents on delicate surfaces. If you are unsure, try out the cleansing agent on a concealed part of the surface.
- Paintwork must be thoroughly dry, as blistering of the film may otherwise occur following application.
- Never apply the film in extremely cold or hot conditions. The optimum application temperature (ambient air and surface) is about 18 °C. Care must also be taken to ensure that the temperature of the film itself is also in the region of 18 °C.
- Initial adhesion is never as strong as final adhesion, as there are still small areas of the film which have not made full contact with the surface. Adhesion will strengthen of its own accord, reaching its maximum after about 24 hours. It is therefore advisable to keep freshly applied films suitably protected against external influences, especially moisture, and not to put them to immediate use.
- Extreme care and absolute cleanliness guarantee optimum results. This is particularly the case with clear films, as every single dirt particle attracted by the adhesive will remain visible after application.

- If possible, round off the corners of the sticker using a sharp cutter and a coin. This will considerably improve adhesion.
- Always peel the silicone paper from the film and never the other way round! – pulling it away at a very low angle, thus keeping the film perfectly flat.

#### 2. Dry application

Dry application gives the best results because maximum adhesion is reached in the shortest possible time and there are no adhesion-retarding application aids to contend with. Dry application should be chosen wherever possible. Indeed, it is indispensable in cases where the film is to be applied to difficult surfaces, e.g. ridges, grooves, rivet heads etc.

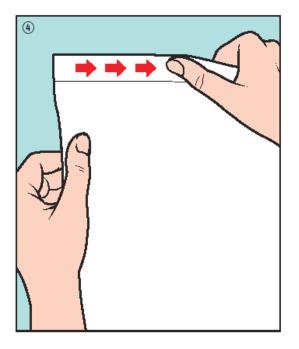
- Do not expose the freshly applied film to moisture for at least 12 hours after application. Do not wash it, and keep it protected from the rain.
- Protect the edges of the sticker against ingress of moisture with a thin coating of non-liquid car wax (paste). This is particularly important during winter months or in cases where a waiting time of 12 hours is not possible.

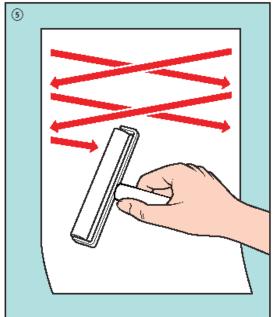
Please consider that all monomeric films are only recommended for vertical flat application. Use polymeric or cast films if application on curves or edges is needed.





#### Application aids: plastic squeegee or rubber roller





#### 2.1 Small stickers and signs

- 1. Clean and dry the surface to which the sticker is to be applied.
- Remove the silicone paper along one edge for 2-3 cm and fold it backwards. The result is an edge of 2-3 cm exposed adhesive. Position the decal that is still covered with silicone paper on the application surface. Once it is in the right position, the exposed edge is pressed to the surface, starting at the middle of the edge, working your way up and down. Do not allow pleats or bubbles to be formed.
- Lift the decal a bit and remove the liner over 15-20 cm (or more if you feel experienced enough) distance. Keep the decal close to the application surface and start to apply it with overlapping squeegee/ rubber roller strokes, beginning at the middle of the already applied edge. Proceed with this application until the entire decal is applied
- 4. Use a pin or needle to prick any remaining air bubbles and then press them flat with the squeegee or rubber roller.
- 5. Finally, rub firmly over the entire surface of the sticker, especially along the edges.

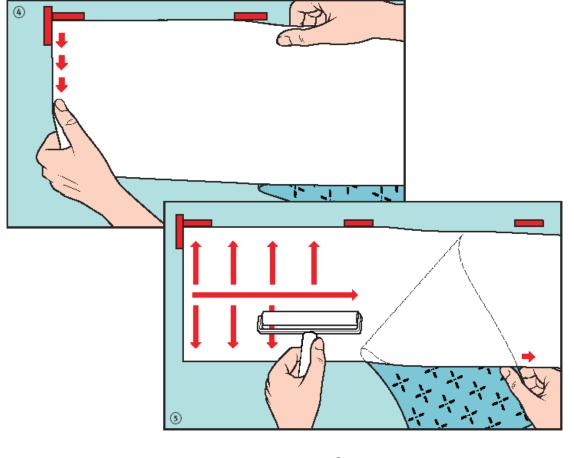




### Application aids: plastic squeegee, rubber roller, adhesive tape

### 2.2 Strips (long, narrow stickers)

- 1. Clean and dry the surface to which the sticker is to be applied.
- Use pieces of adhesive tape to mark the position of the top left-hand corner and top edge of the sticker.
- 3. Peel back the silicone paper by a distance of approx. 10 cm and crease it so that it will stay in its peeled-back position.
- 4. Align the side and top edges of the strip, stick down the exposed end of the sticker and press firmly in position.
- 5. Now peel back the silicone paper little by little, pressing the sticker down with the squeegee or roller and constantly keeping the sticker in line with the positions marked by the pieces of adhesive tape.
- 6. If correction is necessary, or if large air bubbles occur, remove the poorly applied part of the sticker very slowly in order to avoid distortion, readjust it and press it firmly in position again.
- 7. Prick small air bubbles with a needle or pin and press them flat.
- 8. Finally, rub firmly over the entire surface of the strip, especially along the edges.







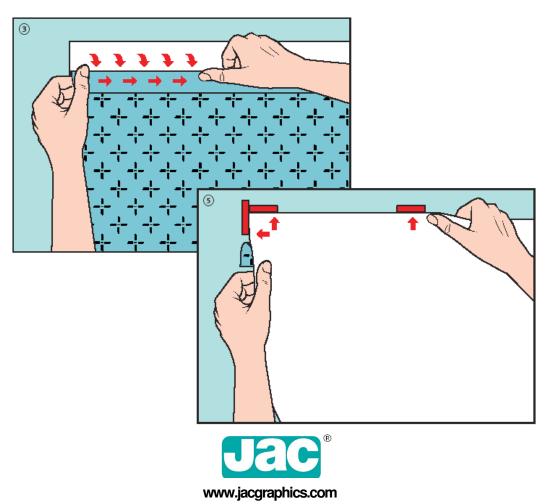
### Application aids: plastic squeegee, rubber roller, adhesive tape

#### 2.3 Medium-sized stickers

- 1. Clean and dry the surface to which the sticker is to be applied.
- 2. Use pieces of adhesive tape to mark the position of the top left-hand corner and top edge of the sticker.
- 3. Peel back the silicone paper from the top edge of the sticker by a distance of approx. 5 cm and crease it so that it will stay in its peeled-back position.
- 4. Hold the sticker over the chosen position, making sure it is properly aligned.
- 5. Press the corner in position.
- 6. Now align the entire top edge of the sticker and press home, gradually progressing from left to

right and making sure you do not stretch or distort the film.

- 7. Now peel back the silicone paper little by little and, using a plastic squeegee or a rubber roller, stick down the rest of the sticker, working from top to bottom with overlapping strokes.
- 8. If correction is necessary, or if large air bubbles occur, remove the poorly applied part of the sticker very slowly in order to avoid distortion, readjust it and press it in position again.
- 9. Prick small air bubbles with a needle or pin and press them flat.
- 10. Finally, rub firmly over the entire surface of the sticker, especially along the edges.



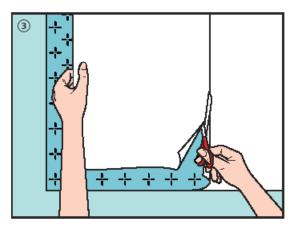


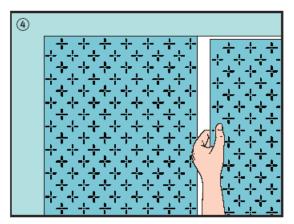
#### Application aids:

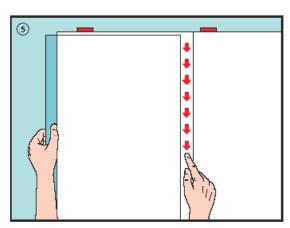
plastic squeegee, rubber roller, adhesive tape, scissors, wider squeegee with good gliding properties

#### 2.4 Large-format stickers

- 1. Clean and dry the surface to which the sticker is to be applied.
- Use pieces of adhesive tape to mark the position of the top left-hand corner and top edge of the sticker.
- 3. Place the sticker face down on a flat surface, peel back the silicone paper from the side of the sticker as far as the middle and then cut it off.
- Replace the cut-off piece of silicone paper, leaving a 5 cm wide gap in the middle; make sure the replaced silicone paper does not project beyond the top edge of the sticker.
- 5. Hold the sticker in position, check the alignment and then press the centre strip down onto the surface.
- 6. Starting at the centre, gradually peel back the silicone paper from each half of the sticker and press the sticker down as you go. Use the wide squeegee and work with overlapping strokes.
- 7. If air bubbles or creases occur, slowly peel back the film and then squeegee it back into position.
- 8. Prick small air bubbles with a needle or pin and press them flat.
- 9. Finally, rub firmly over the entire surface of the sticker, especially along the edges, using the plastic squeegee or rubber roller.







Films featuring our practical JAC-Split<sup>®</sup> peel-off aid are also ideal for such large-format applications.



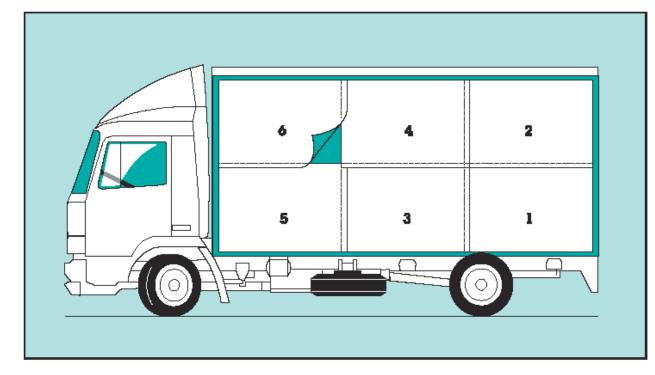


Application aids: felt squeegee or rubber roller...

### 2.4.1 Application on vehicle bodies

- If there are any grooves in the vehicle bodywork, the exposed centre strip (see 2.4) must run parallel with them. Proceed as already described as far as the edge of the groove. Now continue to peel back the silicone paper until you can press the film firmly, but without causing any distortion, into the groove. Any tension in the film can be eliminated by cutting the sticker along the top or bottom edge of the groove. Cut the film in such a way that the surface underneath the sticker is exposed to view as little as possible!
- 2. Small recesses or protrusions (recesses under door handles, hinges, rivet heads) are no problem. Simply heat the film to increase its suppleness.

- 3. At door edges, the film should be wrapped around the edges far enough for it to adhere reliably to the inner sides of the door and frame (make sure the inner sides are clean!).
- 4. If the sticker has to be trimmed around the edge of the wheel arch, the film should be cut approximately 2 mm short of the edge (use a cutter with snap-off blades). This will ensure proper, tension-free adhesion of the sticker along the entire edge.
- 5. In cases where the sticker is so large that it has to be assembled from several smaller, overlapping pieces, proceed in the sequence shown in the illustration. The pieces must overlap from top to bottom and from front to back.
- 6. Protect the edges of the sticker against ingress of moisture.





### 3. Wet application

Large-format stickers can also be applied wet. This method of application is, however, less advantageous than dry application and demands special attention to the following points:

- Initial adhesion is considerably weaker.
- Full adhesion is not reached until much later and the sticker cannot be subjected to normal stress during this time.
- Dry application should therefore always be given preference wherever possible.

If dispersion-based adhesives, come into contact with water, they will become turbid after a time. This turbidity is, however, only temporary and will disappear once there is no further moisture trapped between the adhesive and the film and/or surface.

Neither the adhesive itself nor the ultimate strength and permanence of its adhesion will be adversely affected by the ingress of moisture.

#### Note:

Ecoplus fois are only recommended for dry application.

Test/trials are strongly recommended. If you apply Ecoplus Nonperm C3 and Ecoplus permanent D500 adhesives outside there is the possibility that the edges will roll up after heavy rainfalls.

Solvent-based adhesives do not manifest any turbidity when they come into contact with water.

Ensure that the ambient temperature is high enough to allow the residual moisture to evaporate and escape to atmosphere via the adhesive and the film. One of the factors which decisively influences the evaporation of this residual moisture is the water vapour permeability of the film. This varies considerably from one film to the next and is governed primarily by the specific properties of the film.

Considerable differences exist, for example, between a PVC film, such as JAC SERILUX<sup>®</sup>, and a PP film, such as JAC ECOPLUS<sup>®</sup>. Flexible PVC films are much more permeable to water vapour than PP films. This means, in practical terms, that it will take longer for turbidity to disappear in the case of a PP film than in the case of a PVC film.

In order to reduce turbidity as far as possible when applying PP film, add less wetting agent (baby shampoo) to the water and take care to squeegee as much water from underneath the film as possible. Failure to observe this rule will result in considerable turbidity and this might not disappear even after several weeks.

Wet application, therefore, should be done only under the following conditions:

- During the warmer months of the year
- At temperatures of 20 °C and over
- In dry weather
- Only in cases where the film, once it has been applied, can be protected against heavy moisture for at least 24 hours and then pressed down again (if possible, vehicle stickers should be applied on the last working day of the week and left to dry over the weekend)
- Only if surfaces are absolutely smooth and level.
- Protect the edges of the sticker against ingress of moisture.

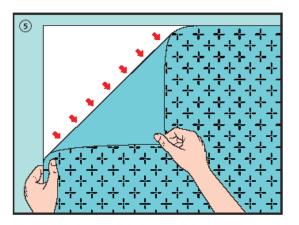


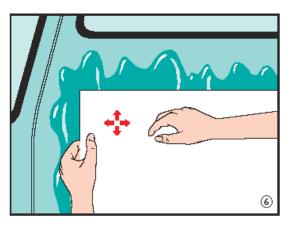


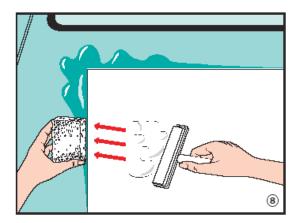
#### Application aids:

plastic squeegee or rubber roller, wider squeegee with good gliding properties, sponge or lint-free cloth, bucket of water, silicone-free detergent (washing-up liquid)

- 1. Clean the surface.
- 2. Mark the position of the top edge and the left-hand top corner.
- 3. Add silicone-free detergent (dishwashing detergent) baby shampoo to the water (some drops) and stir in well.
- 4. Wet the entire surface.
- 5. Remove silicone paper from the sticker.
- 6. Position the sticker on the wet surface and press in place using the wide squeegee, taking care to avoid creases.
- 7. Use the plastic squeegee or rubber roller to force air bubbles towards the edges.
- 8. Again using the plastic squeegee or rubber roller, force the water out towards the edges of the sticker, soaking it up with a sponge or cloth. Work with short, powerful, overlapping strokes.
- 9. Prick any remaining small bubbles with a needle or pin and press them flat.
- 10. Wipe both the sticker and the surrounding area dry.
- 11. Leave the sticker to dry, keeping it well protected against moisture.
- 12. After 24 hours, press down the entire sticker, especially the edges, with the plastic squeegee or rubber roller. Here, too, we recommend sealing the edges.









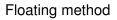


#### **JAC® STICK**

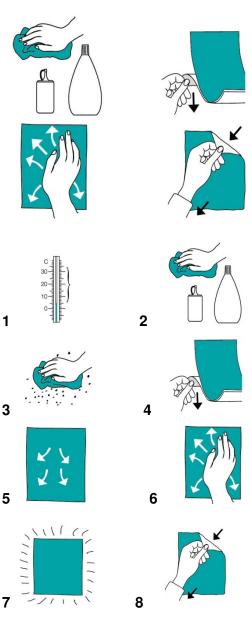
Doesn't stick on rough surfaces. After the material is printed, only the unprinted side has the static characteristics. Follow the instructions of the application guidelines and apply immediately after removal from the backing.

#### Dry method

- 1. Clean the surface.
- 2. Tear off the silicone paper and press the sticker firmly onto the desired surface.
- 3. Use the plastic squeegee or rubber roller to force air bubbles towards the edges.
- 4. The sticker can easily removed and even reused if its surface is still clean.



- 1. Min. application temperature: +5 ℃
- 2. Clean the surface.
- 3. Wet the application surface using a mixture of water and some drops of dishwashing detergent or baby shampoo.
- 4. Tear off the backing paper and smooth the sticker into position before the solution dries.
- 5. Use the plastic squeegee or rubber roller to force air bubbles towards the edges.
- 6. Squeegee the sticker with firm overlapping strokes from the center outward toward each edge to ensure airtight bond.
- 7. Dry entire area with wash leather or a clean cloth.
- 8. The sticker can easily removed and even reused if its surface is still clean.



#### Guarantee and liability

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#### May 2016