#### **Preliminary remarks**

The following general tips are given for application of ORACAL Special Window Films. It is highly recommended to get advice from professional help from a local window film application center to get window films applied on building windows.

## Storage

ORACAL Special Window Films should be stored in a cool dry place protected from sunlight at all times. Material delivered in rolls must be either suspended or stand on-end on the roll blocks provided. For processing window films, relative humidity of between 40% and 50% and temperatures in the range of +18°C to +22°C are considered ideal.

#### **Preparation**

When applying the ORACAL Special Window Films, it is vitally important to prepare the windows properly. The most effective way to clean the glass is by **using a window cleaning solution (water and liquid soap, no-tear shampoo etc.)** and a rubber squeegee to make sure you get all the dirt and residues off. Please clean the glass at least twice avoiding any dust and DO NOT use acid-based chemical solutions to prevent any damage to the film. Dry the glass and window frame with a microfiber cloth. Remember to clean the window sills as well to prevent the transfer of dirt, dust and any other residues. Even the tiniest residue on windows will prevent full bonding with the glass, ending up permanent bubbles in the film after application.

## Cutting

First, measure the windows and cut the window film accordingly, only leaving 2-3 cm extra on the sides.

# Application

Start with spraying a generous amount of application solution (the same as cleaning solution) on the film and on the glass. Peel the protective paper off the window film and spray some on the adhesive side as well.

- With the help of an assistant, carefully place the adhesive side of the film over the glass, starting at the top. While working downwards avoid wrinkles and bubbles as much as you can and you should apply not too much but adequate pressure on the film since the adhesive is pressure-activated.
- When the film is correctly in place, use a rubber squeegee to apply the film firmly onto the glass by using even strokes, starting from the middle and working outwards. At this point it is important to apply some more application solution on the film to provide lubrication for the squeegee.
- Continue pushing the air bubbles and application solution out from underneath the film, but avoid pressing too hard. Use more application solution on the film when needed. Remember that the film has not yet fully bonded with the glass, but it will bond progressively more as the solution is removed. Make sure you are able to access the corners and edges of the window.
- By the time all the application solution and bubbles are removed, the film should be firmly bonded with the glass, with no wrinkles and no trapped air bubbles.
- Slightly trim the extra film on the edges and make sure there will be no gap after trimming. Go over the edges with a squeegee, pressing slightly.
- The adhesive needs at least 48 hours to cure. Until then, do not wash or clean the windows.

## **Important Note**

The information on this document is based on our current knowledge and experience. We have not explained all considering aspects of application. Specialized or occupational knowledge and competence of a professional application window film expert are presupposed. The trained experts are responsible for the quality of application. Due to the diversity of potential influencing factors during application and use, we recommend the purchaser to make their own tests of the films. No legally binding warranty of certain qualities can be derived from this information document as it constitutes neither a warranty of certain properties nor a quality or durability guarantee with regard to our ORACAL® window films. It is end user's responsibility to cover for costs emerging due to the removal of films. The purchaser should carefully consider the suitability and performance of the film for each intended glass type.

