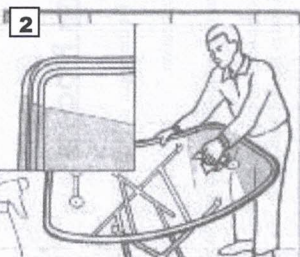


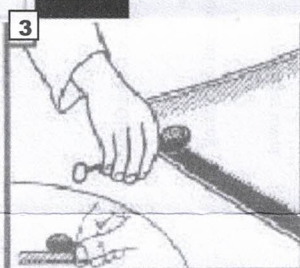
## Winbond International Limited Glass Bonding Procedure.



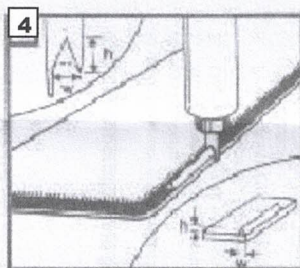
Remove windscreen/glass according to the manufacturers recommended procedure.  
Ensure that all safety procedures are followed.



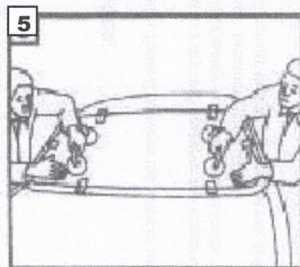
Clean the windscreen thoroughly with a proprietary glass cleaner. Allow to dry before proceeding.  
Open Winbond Wipe Tissue pack. Wipe black ceramic surround or area to be primed with the tissue. Do not stray onto clear area as the product will etch the glass. . The tissue can be resealed in its envelope for further use.  
Caution: Do not stray from the ceramic/black band while applying the Wipe as it may stain/etch the clear glass area.



Apply the Glass/Paint Primer after shaking well, to the ceramic/obscuration band on the glass using the supplied applicator. Apply in one continuous band.  
Allow to flash-off before proceeding. Do not apply adhesive to wet primer.



Cut the nozzle to the required shape. Open the adhesive cartridge.  
Apply adhesive as preferred to either the glass or vehicle body. Ensure that all joins are well sealed to prevent leaks.



Immediately install the windscreen/glass and ensure that it is located and seated correctly. Secure glass with tape to avoid slippage.  
Observe required curing time before allowing the vehicle to be driven away.

**Note:** Ensure that all Health & Safety Procedures are followed and complied with prior to and during the bonding process.  
Check expiry date of all materials used and ensure they are valid.  
Safely dispose of materials after completion.  
Record batch numbers of all products used.  
Comply with Safe Drive-away Times as recommended by the manufacturer.



## Windscreen Bonding Process

The following process is recommended by Winbond International Limited for the use of its products in the Automotive Direct Glazing Market.

The following products are recommended for preparation, treatment and application.

- **Winbond® Glass Wipe:**  
The function of this product is to 'activate' the glass surface to receive the adhesive, as well as cleaning and degreasing the bonding surface.  
The product is supplied as a clear liquid in various container sizes or as an impregnated tissue.  
The product is used to activate the glass surface to be bonded and is applied with the use of a clean cloth or paper towel. In the case of the tissue, it is used as is.
- **Winbond Glass/Paint Primer:**  
The function of this product is to form an impenetrable barrier against UV-light, which destroys PU adhesive. Shake well before use.  
The product is also used as a paint primer to treat newly painted surfaces and prepare them for adhesion. It may be used as a general surface primer for bare metals, wood, plastic, etc.  
This product is supplied as a black liquid in various container sizes. It is applied using a small brush or more conventionally a felt applicator.
- **Winbond® Ultra Cure:**  
This is a single-component moisture curing High Modulus material with an accelerated cure rate. The product offers a drive-away time of 1 hour for non-/single-airbag vehicles and 2 hours for multiple airbag vehicles. For side-windows and other applications please refer to manufacturer.  
The product is supplied in various container sizes and types, the most common of which are cartridges or sachets. These are applied with an extrusion gun with the use of a plastic nozzle, either pre-cut or conventional nozzle cut to suit by the operator.

The product may be applied either to the glass or vehicle body.

**Safety Considerations: NOTE: THESE PRODUCTS CONTAIN ISOCYANATES**  
**MAY PRODUCE AN ALLERGIC REACTION, MAY CAUSE SKIN ALLERGY**  
**AVOID BREATHING VAPOURS. USE IN WELL VENTILATED AREA. HIGHLY FLAMMABLE**  
**WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES, EYE AND FACE PROTECTION**  
**In case of accident or if you feel unwell, seek medical advice immediately.**  
**Read the appropriate label on each product for specific details**

### Personal Safety:

It is recommended that all personnel wear HSE prescribed personal protective apparel.  
Winbond International Limited recommends that operatives should not smoke or eat while performing any chemical processes or using chemical materials.  
It is recommended that prior to eating or smoking, all personnel using chemical products, wash their hands thoroughly. All chemical products should be used in well-ventilated areas.  
Bottles and containers of chemicals should never be left open to the environment and should be disposed of in an authorised and suitable manner.  
No chemical substance not recommended for hand cleaning should be used as such. Use only specified products for hand cleaning or protection.

**KEEP AWAY FROM CHILDREN. SEEK IMMEDIATE MEDICAL ADVICE IF INGESTED.**

**In the event of an accident take all packaging with patient to medical centre.**

### General Safety:

Dispose of all generated waste in the prescribed manner.  
Work in a systematic manner to avoid omitting any process.  
Treat all accidents, spillage and injuries as prescribed in the Material Safety Data Sheets relevant to each material.  
The product should not be used for purposes other than those mentioned above without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant laws are complied with.  
The information contained in these sheets is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects and should not be construed as any guarantee of technical performance or suitability for particular applications.

### Surface Preparation and Bonding:

In order to ensure a successful bond is formed between the vehicle surface and the glass being fitted, the following minimum process is recommended.

1. All work should be undertaken in a dry and dust free environment.
2. Operatives should wear protective safety equipment at all times. These include safety spectacles, skin protection lotion, safety gloves and where required, breathing protection.
3. Prior to commencing any work, ensure that all equipment needed is at hand and that products to be used are within their expiry dates.  
**Caution:** Do not use materials which have thickened or discoloured even if they are within the expiry date.
4. **Glass Preparation:** It is recommended that the glass to be fitted is prepared first. Do this by placing the glass on a stand or suitable secure surface. Clean the glass with a proprietary glass cleaner to ensure that it is dust and grease free.
5. Activate the ceramic/silk-screened surface (black area surrounding the glass) by wiping the area with a clean cloth dampened with Winbond Glass Wipe or with a pre-impregnated tissue. Allow to dry. The tissue can be resealed in its envelope for further use.  
**Caution:** Do not stray from the ceramic/black band while applying the Wipe as it may stain/etch the clear glass area.
6. Apply a band of Winbond Glass/Paint Primer to the ceramic surface using a cotton bud/ applicator felt soaked in Primer. Apply the Primer in one smooth motion; do not 'paint' it on. Shake the bottle well before use. Insert the applicator into the liquid, remove excess liquid from the applicator by squeezing it against the inside neck of the bottle. An 'overloaded' applicator will cause runs on the glass which are messy to remove.  
**Caution:** Should reapplication be required, wait until primer is dry before reapplying. Do not apply wet-on-wet. Apply the primer to the area where the adhesive will be applied.  
Avoid touching primed or treated surfaces with fingers.
7. Allow the primer to dry. In the interim the vehicle glass to be replaced can be removed by whatever suitable means.
8. **Vehicle Surface Preparation:** Whenever possible, the remaining bead of PU on the vehicle should not be completely removed. Bonding to this old PU has proven to be the most effective.
9. Prepare the remaining PU by cutting it down to an even surface using a sharp knife or suitable tool. The remaining bead should be about 3 - 4 mm thick and have no loose pieces attached.
10. The surface is now ready for bonding.
11. **Bonding directly to painted surfaces:** Prime the painted surface in a similar manner to the glass, by applying the primer to the area where the adhesive will be placed. Allow to dry.
12. **Polyurethane Adhesive Application:** Cut the PU cartridge nozzle as required, or use a pre-cut nozzle. It is recommended that the bead is at least 1.5 times higher than its base width.
13. Open the cartridge at both ends, attach the nozzle and place the cartridge into an extrusion gun of choice. Apply the PU in a continuous bead to either the glass or onto the remaining bead on the vehicle. Should sachets or sausage packs be used, refer to the relevant application instructions.  
**Caution:** Ensure that the cartridge is held perpendicular to the surface to which the bead is being applied. This ensures maximum contact and reduces the chances of leaking. Insure an adequate joint is achieved to avoid leaks.
14. Fit the windscreen to the vehicle as soon as is possible.  
**Caution:** Should a delay occur, ensure that the bead has not skinned prior to inserting the screen. Should the bead have skinned it is recommended that the entire bead be scraped off the glass or vehicle and new PU applied. It will not be necessary to re-prime the surfaces, as they remain active for 24 hours after application.
15. Align the screen and refit all trims etc. Use adhesive tape to secure the window and keep it in place/stop it from sliding down.

Allow the vehicle to stand for the recommended cure and drive-away time for the specific type of vehicle.

**For side-windows fitted directly to the vehicle body, a cure time of 4 – 6 hours is recommended.**

