Automotive Dyed Window Film Installation Guide

Recommended Tools	Purpose
Tint-safe glass cleaner, slip solution, spray bottle	Cleaning, positioning, and adhesive wetting
Stainless blade and snap-off knife	Pattern cutting and edge trimming
Hard card, soft squeegee, edge card	Water removal and finishing
Heat gun	Controlled shrinking on curved glass
Lint-free towels and seal cleaning tools	Dust control and edge preparation

1. Preparation

Work in a clean, enclosed installation area. Avoid wind, dust, direct sunlight, and very cold glass. The glass should be cool enough to touch and free from silicone, wax, oil, and ammonia residue.

Check the model, VLT, roll direction, liner side, and approved shade sample before cutting. For dark film, install a small test piece first to confirm color and optical quality.

2. Glass Cleaning

Clean the inside glass at least twice. Scrape safe glass surfaces carefully, flush the edges, and wipe the window seals. Dust trapped under high-VLT film is especially visible, so inspect the glass under strong light.

Do not use abrasive pads on coated glass or printed antenna lines. Use a lint-free towel and keep the final cleaning pass separate from dirty tools.

3. Pattern Cutting and Heat Shrinking

Cut the pattern on the outside of the glass with the liner facing outward. Leave a safe trimming margin. For curved rear glass, form the film with controlled heat and smooth shrinking strokes.

Do not overheat one point. Excessive heat may distort the PET, adhesive, or dyed layer. A 2mil film can require slower, more even heat than a thinner film.

4. Wet Installation

Spray slip solution on the inside glass and on the adhesive after removing the liner. Position the film without touching the adhesive with dry fingers. Keep a 1-2 mm gap from movable glass edges unless the vehicle design requires another method.

Lock the film near the top or center, then squeegee with overlapping strokes from the center outward. Use firm, even pressure and re-wet the surface to prevent scratches.

5. Edge Finishing and Inspection

Trim carefully, dry the borders, and use an edge card to remove remaining water. Heat-seal small fingers only when needed. Inspect the film from inside and outside under bright, even light.

Check for contamination, creases, light gaps, lifted edges, tool marks, and trapped water. Replace any panel that does not meet the agreed quality standard.

6. Curing and Customer Care

Do not lower movable windows for 3-7 days, depending on temperature and humidity. Temporary haze or small water pockets may appear during curing and normally reduce as moisture evaporates.

Clean only after curing. Use a soft cloth and ammonia-free cleaner. Do not use blades, hard brushes, or abrasive chemicals on the installed film.

Installation Quality Checklist

Check Item	Pass Standard
Model and shade	Correct model, VLT, color, and roll direction confirmed
Glass preparation	No dust, oil, silicone, adhesive residue, or cleaner streaks
Film surface	No creases, deep scratches, burns, or permanent fingers
Optical view	No unacceptable distortion, contamination, or visible light gaps
Edges	Clean trim, secure borders, and suitable edge clearance
Moisture removal	Water pushed out evenly; no large trapped pockets
Customer advice	Curing time, window-use restriction, and cleaning method explained

Troubleshooting

• **Small water pockets:** Allow curing time if the film is properly installed and the pocket contains only moisture. Do not puncture the film.

• **Dust or fiber:** If clearly visible and outside the agreed quality tolerance, remove and reinstall the panel in a cleaner environment.

• **Edge lifting:** Dry the edge, re-squeegee, and use controlled heat. Check whether the trim gap, seal pressure, or contamination caused the problem.

• **Crease or burn mark:** Replace the panel. Permanent PET damage cannot be repaired by additional heating.

• **Unexpected shade:** Stop installation and compare the roll label, batch, approved sample, and glass color before continuing.

Important Notes

• VLT laws vary by country, state, and vehicle position. Measure the final glass-plus-film VLT when compliance is required.

• Performance results may change with glass type, film batch, instrument, wavelength, and test method.

• Installation should be completed by trained professionals. The manufacturer is not responsible for damage caused by unsafe cutting, overheating, incorrect chemicals, or illegal application.