



Ultraclean Glass™ CONVERTER

APPLICATION INSTRUCTIONS

BY HAND – NEW GLASS

How to convert new relatively clean normal glass to ‘non-stick’ Ultraclean Glass™ using the manual application method.

STEP 1 - CLEANING

Clean the glass with pure ethanol or isopropanol using a (thick/strong) paper towel or a more durable hybrid paper-and-cloth towel. Alternatively clean the glass with a light commercial glass cleaner that contains no surfactants (tensides), using a microfibre cloth.

STEP 2 - DRYING

If cleaned with ethanol or isopropanol, these alcohols should evaporate and leave the glass dry almost immediately. If cleaned using a glass cleaner, completely dry the glass with a squeegee and paper towel. **Make sure the glass is completely clean and dry before applying the CONVERTER chemical.**

STEP 3 - APPLICATION

Apply the CONVERTER chemical to about one square meter at a time (overlapping to ensure complete coverage) using a trigger spray bottle, rubbing in with circular motions using a paper towel or hybrid paper-and-cloth towel. Continue rubbing/polishing until the chemical is completely gone and the glass is clear. The glass can be stacked in crates or stillages immediately.

A nanoscale chemical reaction will occur on the glass surface.

STEP 4 - TESTING

After 10 minutes, test that the glass has successfully been converted to ‘non-stick’ Ultraclean Glass by placing some water drops on the surface - they should bead up (be repelled). In very low temperatures or very high humidity the reaction may take longer, up to several hours. It takes 24 hours for Ultraclean Glass to fully cure (so no abrasion or chemical resistance testing should be carried out on the glass until at least 24 hours after application).

For sample orders, test every panel. For production orders, test one in every 50 panels, including the first and the last panel.

If the water drops are not beading up (standing up) enough, completely dry the panel and apply the CONVERTER chemical again. The chemical is self-organising so the second application will simply fill-in any gaps.

IMPORTANT NOTE

Surface preparation is critical. The conversion process will always work if the surface is completely clean, dry, and free of dirt, grease, powder, fingerprints, cleaner residues, surfactant residues, and all other contaminants.



SAFETY PRECAUTION

The *CONVERTER* chemical contains ethanol. Ethanol (alcohol) is a common solvent with very useful properties that is found in perfume, certain medicines and many other daily products, however it is flammable. No naked flames, smoking or other sources of ignition should be allowed in areas where the *CONVERTER* chemical is being applied or stored. The same precautions apply to ethanol and isopropanol when they are used as cleaners.

For further information, please refer to the Material Safety Data Sheet (MSDS).

EQUIPMENT

Wear gloves to prevent the ethanol in the *CONVERTER* chemical from drying out your hands and to prevent fingerprints getting on the glass after being cleaned (if there are fingerprints the chemical won't fully contact with the glass and the conversion process will not work in that area). Keep the gloves completely clean to prevent contamination getting on the cleaned glass.

VENTILATION

Application should occur in a well-ventilated area. If sufficient ventilation is not possible a respirator mask (solvent mist type) may be used. Such a mask is recommended if cleaning with isopropanol or using spray application methods.

APPLICATION TEMPERATURE

Application should occur when the room temperature is between 0 degrees and 35 degrees Celsius (32 to 95 degrees Fahrenheit). In low temperatures or high humidity the reaction may take longer than 10 minutes, up to several hours. If the temperature is warm, do not apply in direct sunlight as the alcohol is likely to evaporate too fast.

STORAGE

Store the *CONVERTER* chemical in a cool dry place. Keep the cap tightly sealed and do not allow water or other contaminants to get into the bottle (if they do, the *CONVERTER* chemical should be discarded).

LIFETIME WARRANTY

A lifetime warranty is offered on Ultraclean Glass converted by certified applicators, if the consumer regularly uses the after-care cleaner and the booster every five years or so. The after-care cleaner can be purchased via a subscription and the booster is offered free every five years to subscribers. The product, the after-care cleaner and the booster can all be completely branded by the applicator (e.g. shower manufacturer) and the branding and graphics on the packaging will be according to their specifications.

ABOUT ULTRASHIELD CORPORATION

Ultrashield Corporation is a worldwide leader in Ultraclean Materials™ technology. Ultraclean Glass™ is part of our innovative range of Ultraclean Materials solutions for permanently converting glass, ceramics and other building products into more environmentally-friendly and lower-maintenance materials with new useful functions such as dirt repellence, 'non-stick' surfaces, and protection from staining and corrosion. Our technologies are highly valued because they give back time to consumers and permanently protect their products; increase sales and profits for manufacturers by adding unique features; and contribute to a more sustainable environment.