



# ULTRACLEAN GLASS™ for showers

Chemicals for converting normal glass  
into Ultraclean Glass™



The Difference, is Clear.

# THE ULTRACLEAN GLASS™ DIFFERENCE

## MATERIAL PROPERTIES



### Repellent

Repellent to water, mud and greasy deposits.



### Protected

Protected to shield against staining and corrosion.



### Chemical Resistant

Resistant to cleaners and chemical attack.



### Advanced Nanotechnology

Based on proven German technology, but incorporating the latest international advances in nanotechnology.



### 'Non-stick'

'Non-stick' to limescale, soap scum and grime.



### Abrasion Resistant

Resistant to normal wear and abrasion.



### UV Stable

Unaffected by exposure to sunlight.

## CONSUMER BENEFITS



### Lifetime Warranty

Lifetime Warranty offered to consumers who regularly use the after-care products.



### Product Protection

Helps maintain the shower's pristine condition and protects the consumer's investment.



### Less Cleaning

Gives back valuable time to consumers and minimises maintenance costs.



### Environmentally Friendly

Reduces the need for cleaning chemicals, and cuts down on water, energy and CO<sub>2</sub> emissions.

## BUSINESS BENEFITS



### Differentiation

Clearly differentiates your range of showers in a highly competitive market.



### Increased Sales

New product features result in higher sales to trade and consumer markets.



### Low Cost

Lower cost than other durable solutions - ideal for incorporating as standard on all your products.



### Improved Margins

Added benefits are valued by consumers much more than the cost of Ultraclean Glass.



### Branding

Creates favorable brand associations through your own easy-to-clean glass technology. Builds awareness of your brand through consumer use of your after-care products.

The Difference, is Clear.

## Normal Glass

Showers look sparkling when new, however normal glass quickly becomes covered in limescale and calcium deposits requiring constant cleaning by the owner. Due to glass' somewhat porous and hydrophilic (water-attracting) nature, over time the glass corrosion

process and the ingress of deposits can permanently stain unprotected glass and cause haziness. Furthermore, the constant use of abrasive and harsh chemicals to remove limescale from showers can visibly damage the glass, and is environmentally harmful.

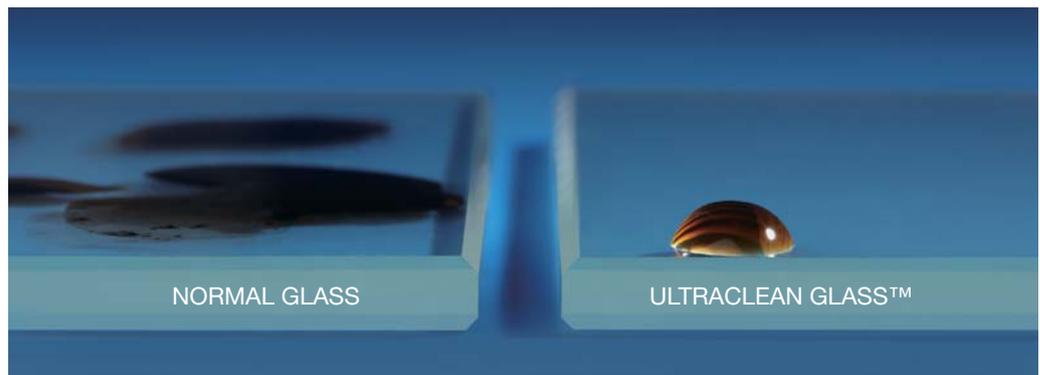
## Ultraclean Glass™

To overcome the age-old problem of shower screens requiring constant cleaning with harsh chemicals, **Ultrashield Corporation developed Ultraclean Glass™ CONVERTER, the ultimate solution for converting ordinary glass into ‘non-stick’ Ultraclean Glass** that naturally repels water, limescale and grime, while permanently protecting the

glass surface. Unlike traditional solutions, Ultrashield surface protection technology bonds with glass at the molecular level, becoming an integral part of the panel and converting its properties. Ultraclean Glass is a material with new functions particularly useful for showers, and is inherently:

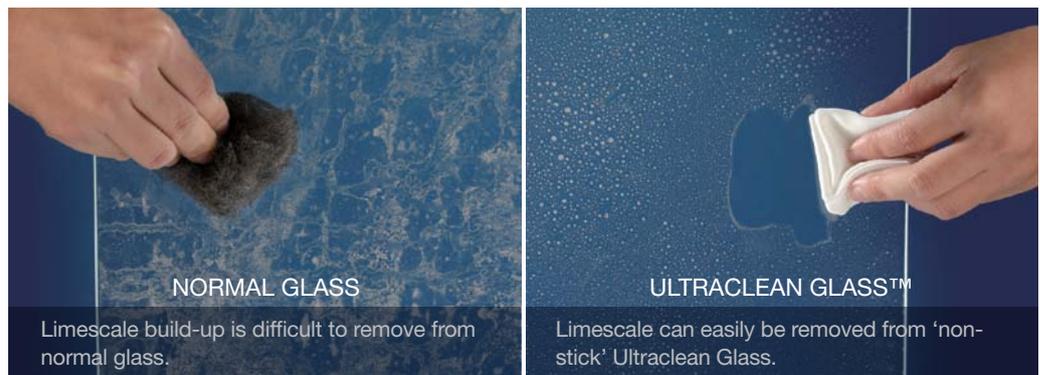
### ✓ Repellent

to water, mud and greasy deposits (just like water off a duck’s back)



### ✓ Non-Stick

to limescale, soap scum and grime (just like a non-stick frypan)



### ✓ Protected

to shield against long-term staining, etching and corrosion



Ultraclean Glass is also less conducive to the growth of mould, mildew and bacteria, for a more hygienic and easier-to-maintain shower environment.

Ultraclean Glass is as completely transparent as normal glass, and because the *CONVERTER* chemical integrates with the glass itself, it will not peel, flake or crack. Ultraclean Glass, like normal glass, is also

UV-stable, chemically inert, and food-safe.

Based on proven German technology, but incorporating the latest international advances in nanotechnology, Ultraclean Glass is the first solution to include a genuine lifetime warranty, when used in conjunction with the unique after-care products.

## EASY TO BE CLEAN, AND 'GREEN'

Consistent with the market trend towards time-saving and more environmentally sustainable 'green' products, Ultraclean Glass reduces cleaning time by up to 90% and minimises the amount of cleaning chemicals released into the environment. Showers incorporating Ultraclean Glass also help to cut down on water, energy and CO<sub>2</sub> emissions associated with the constant cleaning of normal showers, thereby saving on costs as well.

UP TO  
**-90%**  
CLEANING

# Shower Manufacturer Solutions

## Benefits for Shower Companies

Showers enclosure companies can benefit from Ultraclean Glass by:

### Adding Value

Research shows that a shower which is guaranteed to be permanently easier to clean is highly valued by consumers (much greater than the cost of Ultraclean Glass).

### Differentiation

Showers permanently protected from staining and haziness by incorporating Ultraclean Glass provide a very clear point of differentiation from those of competitors.

### Branding Opportunities

Ultrashield Corp offers shower companies a range of valuable new branding opportunities, including the Ultraclean Glass product/protection itself, and through the exclusive consumer after-care program.

For shower manufacturers this equates to more sales at higher margins, and to customers who become more loyal to your unique branded offerings.



## Manufacturing Integration

Ultrashield Corp offers turn-key solutions for integrating the application of the Ultraclean Glass *CONVERTER* chemical into your manufacturing process. Wipe-on, spray-gun and spray-machine solutions are available, depending on the scale of production and the local labour cost.

The *CONVERTER* chemical is extremely easy and efficient to apply and, unlike legacy products, there are no harsh fumes, the surface dries within seconds, and the glass can be handled immediately and is not slippery. The formulation is also environmentally responsible, and treated surfaces are completely food safe.

Free on-site training and follow-up technical support is provided, and certified applicators are able to issue the optional Ultraclean Glass lifetime warranty on all their showers – a unique selling point which is highly preferred by consumers.



A wide range of manual and automated options for integrating application into manufacturing processes, with free technical support.

Ultrashield Corp are also able to refer shower manufacturers to low-cost shower glass suppliers in the Far East, Eastern Europe, South America and elsewhere, who are certified applicators of the *CONVERTER* chemical.

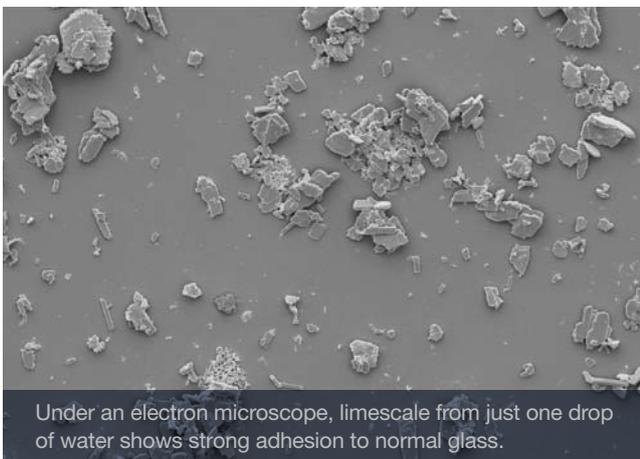
For more information on how to integrate Ultraclean Glass *CONVERTER* into your manufacturing process, please contact your local representative or distributor.

## Durability & Guarantees

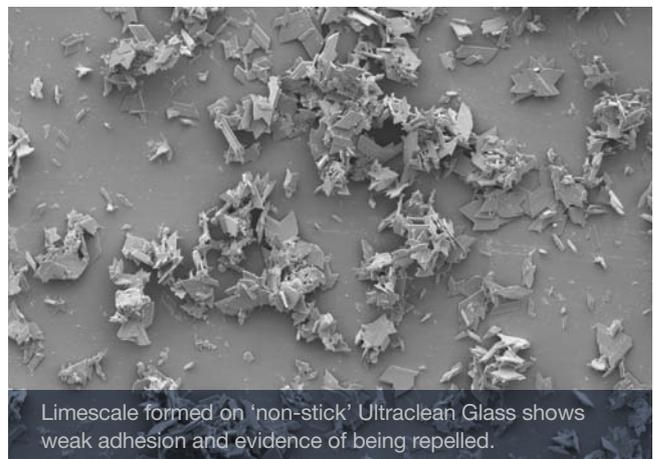
### Integration & Bonding

Ultraclean Glass *CONVERTER* contains nano-size glass (silane) molecules that permanently integrate with the glass panel sharing electrons with the surrounding glass molecules through covalent bonding and becoming indistinguishable from the rest of the panel. Attached functional components convert the properties of the glass, giving Ultraclean Glass its special repellent and 'non-stick' properties.

Other attached reactive components undergo a chemical reaction upon application and bond together in a matrix that is so strong the product is suitable for even abrasive environments such as car windshields.



Under an electron microscope, limescale from just one drop of water shows strong adhesion to normal glass.



Limescale formed on 'non-stick' Ultraclean Glass shows weak adhesion and evidence of being repelled.

## Why Normal Glass Coatings Can't Be Guaranteed for Life

Legacy glass coatings based on silicone and other polymers often display wax-like water repellence at first, but they are typically not UV-stable, they rely purely on mechanical bonding to the surface (instead of much stronger chemical bonds), and their thick layers are directly exposed to abrasion. The initial water repellence, which is also their key selling point, disappears very quickly and trying to maintain it would require constant reapplication of environmentally-unfriendly chemicals. Hardly the low-maintenance shower that consumers are looking for.

Normal nano coating solutions provide an extremely thin layer that bonds to varying degrees with the glass depending on the quality of the coating. However over time normal abrasion will slowly wear away the coating and the glass surface, eventually reducing the effectiveness of the coating beyond usefulness. The common use of harsh and abrasive cleaning chemicals by consumers greatly speeds up the process, making it impossible to guarantee how long the coating will last.



## Ultrashield Corp Lifetime Warranty

The Ultraclean Glass system overcomes the limitations of traditional coating solutions through:

### Preventing the Use of Abrasive Chemicals by Consumers

A specially-formulated environmentally-friendly after-care cleaner has been developed to protect and maintain the glass while ensuring that consumers don't use damaging cleaning methods. At the same time, appropriate consumer expectations are set that the glass will still require light cleaning periodically. This also minimises any after-sales service issues.



### Restoring the Effect After Long-term Abrasion

Ultrashield Corp offer a free booster every five years to consumers who subscribe to regularly use the after-care cleaner product. This booster has been specially formulated to restore the Ultraclean effect back to original performance where the glass has been subject to normal wearing over an extended period.



Both the after-care cleaner and the booster are offered using the shower manufacturer's specified branding and graphics (as an OEM industry supplier Ultrashield Corp do not sell products under their own brand to consumers).

The optional lifetime warranty is subject to consumer use of the after-care cleaner (which is available for purchase via subscription), and use of the booster which is offered free to subscribers. Extensive testing has proven Ultraclean Glass to last indefinitely when used in conjunction with the after-care cleaner and booster, enabling a genuine lifetime warranty to be offered for glass converted by certified applicators.

## Branding Opportunities

Along with increased sales, higher margins and strong product differentiation, Ultraclean Glass also offers shower companies valuable new ways to build their brand through:

### Product Branding

Option for shower manufacturers to use the general description Ultraclean Glass or brand the solution as their own however they wish.

### After-Care Branding

After-care cleaning products are branded using the shower company's name and corporate identity according to their specifications, helping to build long-term brand recognition and loyalty through ongoing customer interaction with their brand.

## Information that Convinces

Only by understanding exactly how Ultraclean Glass is different from ordinary glass will your staff be able to offer qualified advice and assistance to your customers. Ultrashield Corp offer free training for your production staff, as well as those in sales, marketing and customer service. We also encourage you to use our literature, take up our offer to present Ultraclean Glass at in-house events or

industry tradeshows, or to contact one of our specialists who will be happy to answer all your questions. Finally, we can help you win new accounts and business, through convincing demonstrations of the technology and its permanent durability that support your sales efforts. In Ultrashield Corp you have found the world's best 'non-stick' glass system, and a dedicated marketing ally committed to your success.

## Other Solutions

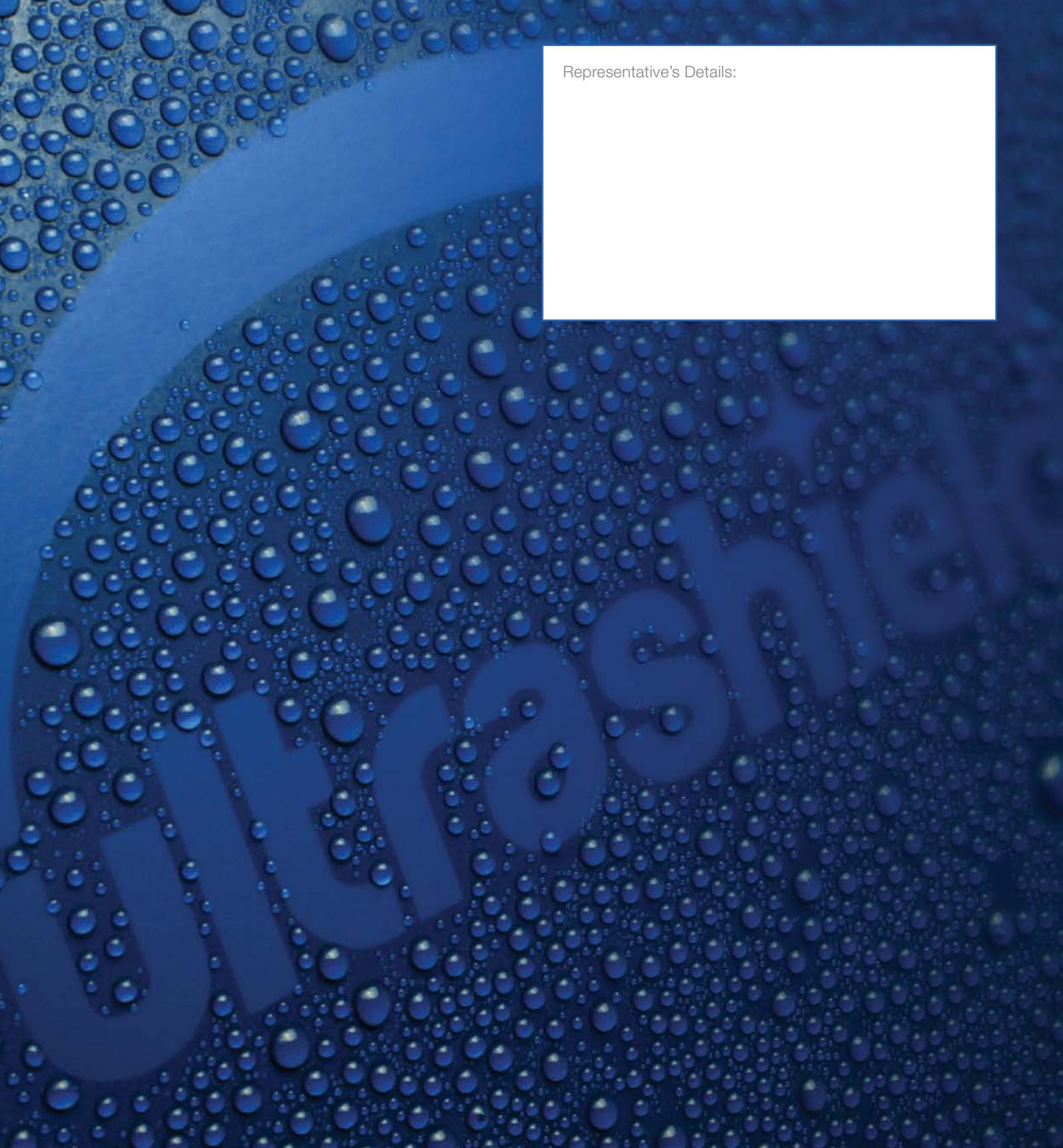
Ultrashield Corporation is a world leader in Ultraclean Materials™ technology. Ultraclean Glass™ is part of our innovative range of Ultraclean Materials solutions for permanently converting glass, ceramics and other building products into more environmentally-friendly and lower-maintenance materials with new useful functions such as dirt repellence, 'non-stick' surfaces, and protection from staining and corrosion. Our technologies give back time to consumers, enhance sales and profits for manufacturers and distributors, and contribute to a more sustainable environment.



**For more information:** [www.ultrashieldcorp.com](http://www.ultrashieldcorp.com)  
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Representative's Details:

Blank white box for representative details.



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