



• Easy to clean
• Durability tested



pct
GLOBAL

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EnduroShield treated glass causes the surface to become visibly water repellent – making it easy to confirm the presence of the coating. To observe the difference between treated and untreated glass, please follow the steps below.

Please note that brand new untreated glass can appear to be slightly water repellent for the first few weeks of use as the glass is smooth. However as the glass quickly ages etching and deterioration can occur making it more difficult to clean.

EnduroShield Water Repellency Test

1. Clean down the glass surface using a mild diswashing detergent mixed with water in conjunction with a damp microfibre cloth. This step is not required if the shower has not been used.
2. Dry the glass surface with a dry microfibre cloth until it is completely dry to the touch
3. At the top of the glass panel, use a jug of cold water with a small opening such as a kettle to pour the water over the glass from left to right.

Treated EnduroShield glass will behave as follows (Refer fig 1 and 2):

Water will snake down the glass in thin rivulets and create round beads or droplets that will sit high on the treated glass surface due to its repellent nature.

Untreated EnduroShield glass will behave as follows (Refer fig 3)

Water will sheet down the glass over a larger area and maintain a flat appearance

On an EnduroShield treated surface where water is left to dry, any minerals or soaps that dry on the glass may form into small round "spots" or dust marks. As these accumulate over time, due to the water repellent nature of the coating, they will start to form into a vertical trend, and ultimately with a severely neglected surface can almost develop into stripes of minerals. (Refer Fig 4)

An untreated surface on the other hand, with minerals left to dry on it, will not develop small round "spots" – but instead appear like smears of water that dried. (Refer Fig 5)

Note: On treated glass that is significantly dirty it can sometimes look similar to this, hence the importance to first clean the surface before making any assessment of the presence of the coating.

[View video of treated versus untreated glass](#)



Fig 1: Treated Glass



Fig 2: Treated Glass



Fig 3: Untreated Glass



Fig 4: Treated Glass



Fig 5: Untreated Glass



EnduroShield Glass

FAQ's

What is the best way to clean the shower glass once it has been treated with EnduroShield®? To keep your glass shower door looking new, the glass needs to be cleaned each week using a damp microfibre cloth and a mild detergent to remove any soap scum, dirt or grime from the glass. Please refer to the list of acceptable cleaners to use on the protected surfaces found under the care instructions of the EnduroShield website: www.enduroshield.com/CareInstruction.aspx

What is the best way to clean a glass interior glass surfaces such as railings or windows once it has been treated with EnduroShield®? For exterior glass surfaces such as railings and windows, clean as required using water and a mild detergent (such as washing up liquid). Wash the glass with a microfiber cloth, and dry with a good quality squeegee*. Alternatively, clean with a window cleaner and a cloth. For best results clean the glass in the shade to prevent streaking.

Is a squeegee required to clean the glass after each use? For interior glass such as showers a squeegee* is not required unless in hard water areas where a good quality squeegee* may be used daily to remove any mineral deposits. For exterior glass surfaces such as railings and windows it is not required however a good quality squeegee* is ideal to remove excess water after cleaning with a mild detergent and ensures a streak free finish.

How often does the glass need to be cleaned once EnduroShield® has been applied? To keep your shower screen looking new, the glass needs to be cleaned weekly using a damp microfiber cloth and a mild detergent. For exterior glass surfaces such as railings and windows, clean as required using water and a mild detergent (such as dish washing liquid).

Will the coating crack, peel or discolour over time? No the coating is only 2 molecules thick and is transparent. It will not crack or discolour over time. It is not like a lacquer or varnish.

Does the coating get attacked by common household chemicals? Generally no, but the coating can be effected by strong acids and alkalis. Warning: The EnduroShield coating can be affected by cleaning products containing strong alkalis and by modern mould removing agents containing a combination of bleach and sodium hydroxide. Avoid these and use alternatives such as pure white vinegar or diluted tea tree oil to treat mould on glass and surrounding areas such as tiles.

Will the surface become patchy if the coating is worn off in any way? No. The coating is only two molecules thick and transparent, thus it does not change the appearance of the surface. If an abrasive was used, where the coating was worn away would not be visible. That area would, however, be harder to clean. The unprotected surface can be easily repaired by cleaning and re-spraying with EnduroShield. The molecules will bond directly to the untreated surface.

Can EnduroShield® be applied to existing glass, including old shower screens or bath enclosures? Yes it can. EnduroShield after-market applicators can apply EnduroShield to new and existing glass surfaces. When applied, EnduroShield will prevent the glass from deteriorating and will make it much easier to maintain. In cases where the glass is permanently stained, the applicator may be able to restore the glass back to a near new condition using the EnduroShield® Restoration System.



Shower Glass

The shower is one of the harshest environments in the home. EnduroShield provides superior protection against the corrosive effects of soap scum, dirt, grime, lime scale, salt, chemicals, and hard water.

Protect Your Interior & Exterior Glass

EnduroShield® is a revolutionary invisible coating that repels water, soap scum and grime, allowing you easier cleaning less often.

Water will bead on the surface of the protective coating, demonstrating EnduroShield's repellent nature, and similar to a non-stick fry pan cleaning time is noticeably reduced. EnduroShield works on new and existing surfaces.

- ✓ **Makes cleaning a breeze** - A regular wipe over with a microfibre cloth and dishwashing liquid is all it takes, no more scrubbing
- ✓ **Superior Protection** - Against the corrosive effects of soap scum, dirt, grime, lime scale, salt, chemicals, and hard water
- ✓ **Reduces Cleaning Time** - By up to 90%
- ✓ **Glass stays cleaner for longer between cleans**

Popular Mechanics named EnduroShield in
"48 life changing upgrades for your home"
Oct 2014 edition



EnduroShield

Up to 90% Less Cleaning

SHOWER PANELS:

ENDUROSHIELD® PROTECTION FOR GLASS

EnduroShield® for Glass is a permanent non-stick, protective coating for use on all glass surfaces. Using state of the art nanotechnology, EnduroShield acts as a permanent shield to seal the porosity of the glass, allowing contaminants to reside on an easy to clean protective coating. The invisible coating, which is only two molecules thick, protects against staining and etching, making it an ideal solution for glass installations.



SPECIFICATION:

EnduroShield® continues to be specified by leading architects for application on both residential and commercial developments to protect the glass surfaces and reduce maintenance time for clients.

"Since you put EnduroShield on my shower screens I have found they need much less cleaning, much less often. As I'm a very busy person, that makes me very happy."

Thanks!!"

Jan Talor, Melbourne, VIC



APPLICATION

EnduroShield® is ideal for use on all glass shower screens. The once only application makes dirt, soap scum and grime easier to clean by up to 90%. EnduroShield® protects the glass surfaces against deterioration from mineral deposits from water, shampoo chemicals, soaps and body fats.

HOW TO APPLY

EnduroShield® can be applied in factory to the glass panels before installation or in situ by certified applicators. The product is a clear liquid that is sprayed on, and polished into the glass, creating a permanent bond. Application comes complete with a 10 year warranty when applied to new glass, or 5 years when applied to existing glass.

FEATURES & BENEFITS

Once only application: permanently bonds to the glass. EnduroShield® is not a traditional coating that sits on the glass, but chemically bonds, becoming a permanent extension to the surface.

Protects against corrosion and etching from contaminants including soap scum and lime scaling. Untreated glass is porous and as a result, it absorbs contaminants and pollution which cause deterioration and discolouration. The deterioration of the surface makes cleaning more frequent and more difficult. EnduroShield® seals the porosity of the glass helping prevent the deterioration caused by etching and corrosion. As a result the time and frequency of cleaning the glass is reduced.

Maintenance costs are significantly reduced. As EnduroShield® creates a permanent non-stick coating which greatly reduces the time spent cleaning, maintenance costs can be reduced. EnduroShield® also protects the glass from staining and etching, eliminating the need for expensive glass restoration or replacement of panels.

Works on all glass including bathroom mirrors. EnduroShield® is suitable for application to all glass surfaces. Effective on all glass surfaces, EnduroShield® can be used on bathroom mirrors, windows and doors.

EnduroShield

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CARE & MAINTENANCE

Maintaining the Treated Surface

For best results simply drying the glass with a squeegee or towel after each use will keep the glass clean and reduce mineral spots forming. The glass needs to be cleaned every few weeks using a damp microfibre cloth and a mild detergent to break down soaps, oils, and conditioners on the glass. General glass cleaners are also suitable, however most of these are finishing agents rather than cleaners, and are an added expense that is not required.

Hard Water Maintenance

In hard water areas, or areas where water drops dry and leave a noticeable dust mark, a build of minerals may occur on the protective treatment. While these may not be removed as easily with the mild detergent, mild acids will often remove the marks quickly. As needed white vinegar should be used to wipe down the glass. *Keep in mind the vinegar may be diluted with water, however dilution reduces the effectiveness.*

Spray vinegar onto the glass and allow to soak for several minutes. This will dissolve any mineral deposits that have built up on the glass surface. A damp microfibre cloth should then be used to wipe over the surface. For extreme hard water areas we recommended using the vinegar / water solution (listed above) every week or so as a cleaning option to reduce this build up on the surface, rather than allowing the build up to continue over a long period of time.

Prohibited Products

**Note these may damage the treatment and void any warranty*

- ▶ Avoid the use of any harsh or chemical cleaners, with correct maintenance these are never required
- ▶ Avoid the use of any abrasives or polishes including water spot removers, toothpaste, polishes, rough, or gritty substances
- ▶ Avoid the use of acids or alkalis that you would not want in contact with your skin for an extended period of time
- ▶ Avoid products such as Comet, Ajax, Jiff or Cerium Oxide which polish back the actual substrate

Approved Cleaning Products

The below products have been tested for compatibility with EnduroShield, however there are no specific products that must be used. We feel you should not be required to purchase extra products in order to keep your glass clean. All you need for clean glass beyond 10 years is a squeegee, a mild liquid dish soap, and white vinegar.

Any product that does not fall into the prohibited categories listed above will be fine, and below is a short list of acceptable products:

- ▶ Windex
- ▶ SprayWay (or other alcohol based foaming cleaners)
- ▶ Scrubbing Bubbles (or other automatic leave-to-dry daily shower cleaners)
- ▶ 7th Generation, Fantastik Orange Action (or other mild eco friendly cleaners)
- ▶ CLR (Calcium Lime Rust)
- ▶ Mr. Clean Magic Eraser (*when damp*)

It should be noted that with any cleaner used on the EnduroShield surface a thorough rinse with clean water should follow immediately. Although these cleaners can be used, EnduroShield is designed to be an 'easy clean coating' that does not require harsh or toxic cleaning chemicals to maintain the surface effectively.

If for any reason the recommended maintenance has not been followed for some time, just as it took time for the build up to occur, it will take time to remove the debris from the protected glass surface. This can most commonly be achieved using undiluted white vinegar dampened on a Magic Eraser, or CLR on a Magic Eraser. Depending on the severity of the build up this may take multiple attempts, but once the glass is again clean it will perform like new.



EnduroShield Glass

FAQ's

How long will the coating last? Accelerated testing carried out simulated cleaning a shower screen over a 10 year period. The results revealed that after this time the coating maintained the ability to bead water and remained easy to clean.

Can the coating be damaged? Yes. Be careful not to use any rough, gritty, highly acidic, alkaline or abrasive cleaners such as cerium oxide as they may damage the protective coating. Cleaners like this damage or polish back the actual substrate of the surface.

What do I do if minerals build up on my glass? For areas with hard water or bore water, due to a higher concentrate of mineral deposits such as lime and calcium, a build up may occur on the protective coating and may not be easily removed with a mild detergent. A solution of white vinegar and water (1 part vinegar to 4 parts water) should be sprayed onto the glass and allowed to soak for several minutes. This will dissolve any mineral deposits that have built up on the glass surface. A damp microfibre cloth should then be used to wipe the over the glass.

Around the world there are some unique locations which have extremely harsh conditions. In these harshest of water environments, EnduroShield is a great choice. Simply put if you didn't have the EnduroShield protection, your glass may have to be restored to bring back the clarity or even replaced. In some cases this staining can occur in less than 1 year. New Orleans, Louisiana and Perth, Western Australia are examples of cities with very high mineral concentrations.

Being so robust, the EnduroShield coating is a great option in these conditions. EnduroShield allows you to have great looking glass, but it takes a little more work due to these specific environmental conditions. In such environments minerals are so prevalent in the water that they can still create a build up on the EnduroShield coating, (it usually doesn't damage the glass but can build up over time) and become difficult to remove. We recommended using the vinegar / water solution (listed above) every week or so as a cleaning option to reduce this build up on the surface, rather than allowing the build up to continue over a long period of time.

If I don't clean my EnduroShield® treated shower after use, will there be water spots? In most cases, yes.

Water repellent coatings will cause water to bead up into tall, distinct drops, similar to a freshly waxed car. The amount of drops left on the glass is dependent on the size of the drops themselves. Most often the top of the enclosure that has a fine mist spraying from one's shoulders will have many very small drops, whereas on the bottom sections of the glass the majority of the water will fall off in thin, snaky lines, and a few water drops can be left behind. Cleaning these drops from EnduroShield treated glass can be done by simply using a good quality squeegee* or microfiber after a shower. If the glass is not cleaned, minerals and soap scum can dry and bond to themselves, which because of the coating will wipe off easily.

It is important to note that glass unprotected by EnduroShield would begin to permanently etch and become damaged due to these water-borne minerals, whereas your treated door will resist etching with only minimal maintenance!

**Recommended squeegee brand is Ettore or Pulex*

Application Option 1 EnduroShield® Professionally Applied

The professional strength glass coating is a professionally applied product that creates a permanent* bond with the glass and comes with a 10-year performance warranty to new glass.



The largest glass fabricators and manufacturers around the world rely on EnduroShield as the industry-leading solution. To order, simply request EnduroShield be factory or professionally applied to your new glass.

Professional application services are also available for pre-installed glass, tile & grout, stainless steel and chrome surfaces.

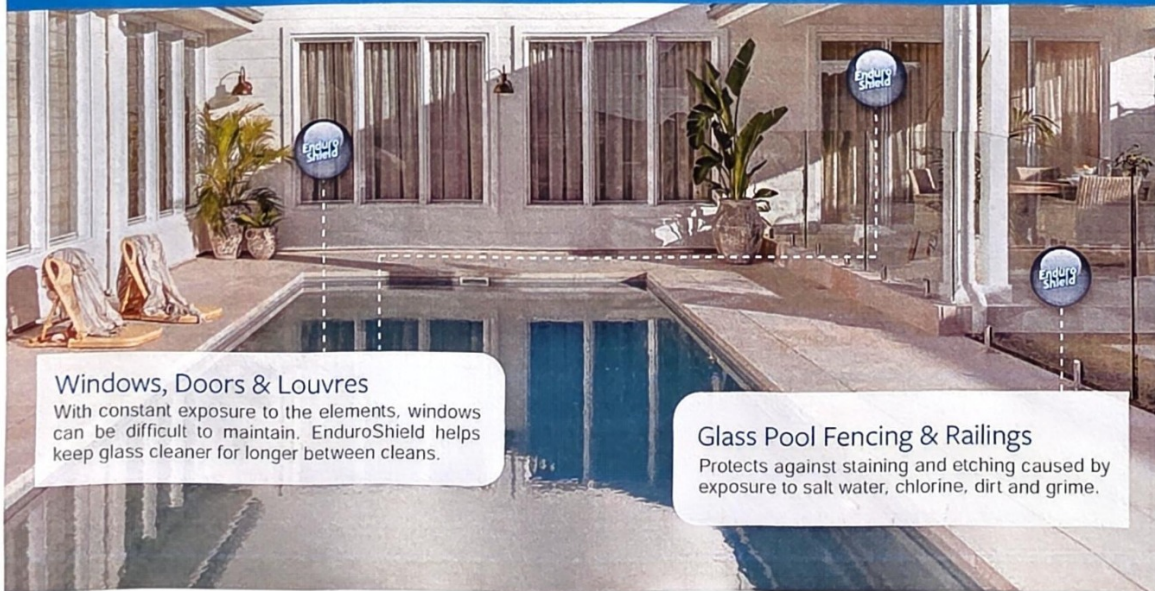


Application Option 2 EnduroShield® Home - DIY Kits

The consumer strength Do-It-Yourself coating range is easy to apply and comes complete with pre-cleaner, and protective coating. EnduroShield Home coatings are simply sprayed on and wiped into a clean surface!



Cut Cleaning Time By Up To 90%



Windows, Doors & Louvres

With constant exposure to the elements, windows can be difficult to maintain. EnduroShield helps keep glass cleaner for longer between cleans.

Glass Pool Fencing & Railings

Protects against staining and etching caused by exposure to salt water, chlorine, dirt and grime.

Featured in the World's Media



TIME Magazine ranks EnduroShield in
"TOP 10 most compelling smartest gadgets
trying to save the world"
July 7 2014 edition



“ LOVE THIS ”
Now I have shower glass that require a simple wipe-over with my
microfibre cloth - no cleaning product necessary - to maintain their
crystal clear clarity. This has certainly taken away the biggest
headache in cleaning my bathroom. The same can be said for the
windows in my entrance foyer
Catherine | Vermont South, VIC

Over 1000 Five Star Reviews



Millions Of Showers Protected

Relied On By The Best For Over 20 Years

Hilton Hawaiian Village



Used by leading hotels to
protect shower glass &
reduce cleaning time

Carnival Victory



Applied to shower glass and
portholes on cruise liners

One World Trade Centre



Trusted & chosen on a range
of architectural projects
worldwide

McKinney & Olive



Protecting glass on
commercial towers across 6
continents

Testing & Certification

EnduroShield® for glass has been awarded certification from TÜV Rheinland Germany for both durability and easy to clean functionality. The durability test was carried out to simulate a lifetime of 10 years on interior and exterior use. A certified product is one that has passed extensive testing carried out by TÜV Rheinland Group, including safety and quality.

TÜV's testing provides our customers and the general public quantifiable evidence of performance from one of the world's most prestigious independent international testing and safety agencies.

We think independent evidence of performance is important. EnduroShield has passed durability and performance testing with numerous agencies including the globally prestigious TÜV Rheinland and Intertek. Millions of showers have been treated since 2006 and TÜV's 10 year certification provides quantifiable evidence of performance.



intertek
Total Quality. Assured.

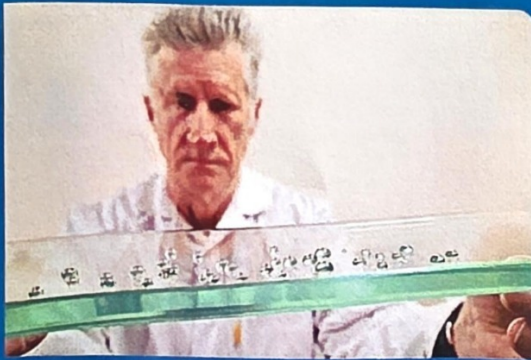
* Independently tested and certified for durability to simulate a lifetime of 10 years on interior and exterior use by TÜV Rheinland.

Why EnduroShield?

EnduroShield® leads the industry in both water and oil repellent coatings, which provides maximum protection against staining. When professionally applied, EnduroShield provides a true performance warranty, that it will remain water repellent with a bead angle greater than 70 degrees during its service life, which we accept as a minimum measurement for an easy to clean surface.

Some professionally applied coatings claim they will last the distance, but only warrant that they will remain more water repellent than untreated glass. Untreated glass is measured at a low angle of approximately 15 degrees. These coatings therefore do not hold themselves to a minimum water repellency measurement.

These coatings often require unrealistic daily cleaning tasks to be performed or revitaliser products to be purchased in order to maintain the coating and the warranty. This is why not all products and warranties are the same. EnduroShield does not sell revitaliser products because they are not required to maintain performance. These are some of the many reasons why the largest glass providers choose to offer EnduroShield to their customers.



Call **1300 720 106** or visit
enduroshield.com for your nearest
certified applicator or stockist of D.I.Y kits

BRAND-PROTECTOR
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It's Easy To Be Green
With EnduroShield

**Enduro
Shield**

EASY CLEAN GLASS PROTECTION



WARRANTY



REPELS WATER

Lasting protection
that cuts cleaning time

WARRANTY & CLEANING INSTRUCTIONS SHOWERS

Thank you for choosing EnduroShield. Your shower glass and Tiles & Grout have been treated with a protective coating designed to **reduce cleaning time and help prevent build-up**.

⚠ Important: The coating does not make the surface self-cleaning. **Regular cleaning is required** to maintain the coating and your warranty.

Daily Care (Recommended)

For best results after showering:

- Use a squeegee to remove water from the glass
- This helps prevent water spots and mineral build-up

Weekly Cleaning

Clean the glass and tiles **once per week** using the following method:

1. Mix 50% white vinegar and 50% water. (Not suitable if you have natural stone / marble tiles)
2. Spray the solution onto the glass and tiles.
3. Using a Damp Magic Eraser pad, gently wipe the surface:
 - Side to side
 - Then up and down
4. Allow the solution to sit for 2 minutes
5. Rinse thoroughly with water
6. Squeegee the glass dry
7. Dry edges with a microfibre cloth or paper towel

Recommended Cleaning Tools

EnduroShield recommends using:

- EnduroShield Professional Squeegee
- Magic Eraser Pads
- Microfibre Cloths

These products are available from your EnduroShield technician or EnduroShield Queensland office.

Products to Avoid

Certain cleaners can damage the EnduroShield coating and using these will void your warranty.

✗ Do not use abrasive cleaners or scrubbing pads

Examples include:

Ajax, bleach, toothpaste, baking soda, water spot remover pastes, metal polish, cerium oxide, Sparkle, Bio-Clean, Norwex cloths, steel wool or heavy scrub pads.

✗ Do not use extreme alkaline cleaners

(Cleaners with a pH above 12 or strong anti-fungal cleaners containing bleach)

✗ Do not use strong acids

(Cleaners strong enough to corrode glass, metal or ceramic surfaces)

SHOWER TIME USE:

Your shower will be able to be used from the time stated below, any use prior to this time will void your warranty.

Ensuite _____ Main _____ Other _____

To maintain your EnduroShield warranty, the surface must be cleaned following these instructions.

If during the warranty period the surface becomes **difficult to clean**, please contact your EnduroShield applicator or EnduroShield Queensland immediately.

⚠ Failure to follow the recommended cleaning instructions or report issues when first noticed may void your warranty.