

EnduroShield™ Glass



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EnduroShield™ is perfect for use on glass windows and doors. The once only application makes dirt and grime easier to clean up to 90%. It will also protect against corrosion and etching from contaminants including sea salt, bird droppings and cement slurry during the building process. Untreated glass is very porous and as a result it absorbs contaminants which cause deterioration and discoloration. This deterioration etches and corrodes the surface making cleaning more frequent and difficult. EnduroShield™ seals the porosity and prevents this from occurring.

Similar to a non-stick fry pan, cleaning is made easier using only water and a mild detergent or a microfiber mitt and water. For best results, use a squeegee to remove any water from the glass after cleaning. EnduroShield™ makes cleaning a breeze. It will also keep the glass looking cleaner for longer periods between washing!

Features:

- Up to 90% less Cleaning time
- Once only Application
- Protection against staining & etching
- 3 Year Warranty on existing glass
- 10 Year Warranty on new glass

Save time and money with EnduroShield™, the revolutionary permanent non-stick coating for all glass surfaces. The once only application makes grime, dirt and soap scum easier to clean by up to 90%.

EnduroShield™ is an ultra-thin transparent coating that completely adheres to the glass surface and provides protection that will repel both water and oil based stains. Similar to a non-stick fry pan, cleaning is made easier using only water and a mild detergent or with a micro fiber mitt. No longer is scrubbing with harsh toxic cleaners needed, EnduroShield™ makes cleaning a breeze. The superior protection also helps prevent the build-up of mould and harmful bacteria, promoting a germ free environment.

EnduroShield™ can be used on all glass surfaces such as shower glass, windows, glass guard rails, colored glass splash backs, mirrors, glass roofs, commercial buildings, and even car windshields.

Extensive testing has been carried out to determine the durability and longevity of the protective coating. EnduroShield passed 5000 wash cycles with minimal loss performance. The figure of 5000 cycles is equivalent to washing EnduroShield once per week for fifty weeks per year, for ten years.

EnduroShield™ can be purchased as an optional extra on your new windows, doors and skylights, shower glass, pool fence or any glass you want to protect and comes complete with a 10-year warranty when applied by an approved applicator. This will ensure that your new glass remains stain free for many years to come.

What is the best way to clean my glass once it has been treated?

A mild detergent with a sponge works well. A micro fiber mitt/cloth with water works just as well and saves you money on cleaners. You can buy these in the cleaning aisle of your supermarket.

How often should I clean the shower?

A quick clean is recommended every couple of weeks to keep the surface clean.

Will the coating crack, peel or discolor over time?

No the coating is only 2 molecules thick and is invisible. There is nothing that will crack or discolor over time. It is unlike a lacquer or varnish.

Will coating gradually wash off with each use?

No the product is permanent. It is unlike some products that are silicone based and wear off over a period of time.

Does the coating get attacked by chemicals?

No. The only way to remove the coating is by removing molecules of glass, such as scratching the glass or using a rough, gritty or abrasive cleaner. You can still use your harsh toxic cleaners, but why would you?

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 to be used, it would not be visible where it was worn away. That area would, however, be harder to clean. The unprotected surface can be easily repaired by cleaning the area and re-spraying with EnduroShield™. The molecules will bond directly to the untreated surface.

Do I need to use the steel wool if I have a new shower screen or tiles?

No, only if you have an existing shower. The steel wool is used to remove the build-up of soap scum, mineral deposits and lime scaling.

Is it worth putting on an old shower?

Yes it is. If it is really old, you will not be able to remove all the cloudiness from the glass as it is permanently stained. However EnduroShield™ will prevent it from becoming worse and will make it much easier to keep clean.

How long will the coating last?

Accelerated testing carried out simulated cleaning shower glass and tiles & grout over a 10 year period. The results revealed that after this time there were minimal or no change to the molecules structure.

Do I need to mask fixtures and fittings when I coat the area?

No, the product is not corrosive and will not harm fixtures and fittings. If the product does come in contact, the fixtures or fitting will become water repellent for a short period of time until the product wears off.

Can the coating be used on exterior glass?

Yes, the coating is UV stable and will not breakdown

Enduro Shield[★]



PROTECTIVE COATINGS

GLASS • TILES & GROUT • PORCELAIN • STAINLESS STEEL

GLASS:

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 all glass projects.



APPLICATION

COMMERCIAL & RESIDENTIAL

- Windows
- Doors
- Balustrades
- Glass Facades
- Shower Screens
- Glass Roofing and Skylights
- Awnings and Canopies
- Glass Splashbacks
- Mirrors
- Pool Fencing

HOW TO APPLY

EnduroShield™ can be applied in factory to the glass before installation or in situ by professional 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 3 years when applied to existing glass.

HOW TO SPECIFY

To make it easy to specify EnduroShield™ for your next project, a two page specification on each product is available to download at:
www.enduroshield.com/specifications



Glass feature walls
Foxtel - Sydney

**Enduro
Shield**

"EnduroShield was a great solution for the glass awnings on the \$190M Chatswood Transport Interchange which are highly exposed to pollution & grime"
M.Smart, Project Estimator, Laing O'Rourke

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 sea salts and pollution

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.

Protects against etching and pitting from cement slurry

Glass used as glazing in the building industry often receives splatter and run off from concrete and cement. If this is allowed to remain on the glass, etching and pitting can occur, necessitating the costly replacement of the glass.

EnduroShield™ is an inexpensive and easy to apply treatment that protects the glass during the building process. When the building process is complete, EnduroShield™ continues to provide a permanent invisible coating that makes the surface easier to clean and protects the glass from staining over time.

Coating is UV stable

Accelerated testing of glass with an EnduroShield™ coating has been undertaken with exposure to alternating cycles of UV light and condensation. Results show minimal or no change in the product's efficacy.

Maintenance costs are significantly reduced

As EnduroShield™ creates a permanent non-stick coating which reduces the time spent cleaning; maintenance costs can be significantly reduced.

EnduroShield™ also protects the glass from staining and etching over time, eliminating the need for commercial and hotel properties to undertake expensive glass restoration projects.

"Over the past two years I have used various EnduroShield products. I am extremely pleased with their performance. Dimidium Design recommend and specify EnduroShield regularly on projects of varying size and application"
G. Ferris-Smith, Director, Dimidium Design



TILES, GROUT & PORCELAIN:

ENDUROSHIELD PROTECTION FOR TILES & GROUT

EnduroShield™ for Tiles and Grout is a non-stick protective coating which minimises maintenance on treated surfaces by reducing cleaning time and effort. Using state of the art nano-technology, EnduroShield™ chemically bonds to the tiles and grout surface leaving an ultra thin transparent film that provides both hydrophobic and oleophobic protection. EnduroShield™ acts as an invisible barrier to prevent contaminants from soaking into the surface, allowing them to sit on the outside of the coating instead. The superior protection reduces the build-up of mould and harmful bacteria, helping promote a germ free environment.



EnduroShield™ acts as an invisible barrier to prevent contaminants from soaking into the surface



APPLICATION

COMMERCIAL & RESIDENTIAL

- Wall & Floor Tiles
- Shower Recess (Wall & Floor Tiles)
- Polished Porcelain Floors
- Kitchen Splashbacks
- Ceramic Vanities, Toilets and Baths

FEATURES & BENEFITS

- Works on new or existing tiles & grout (ceramic, vitrified or porcelain)
- Once only application: permanently bonds to the surface
- Helps reduce the build-up of mould and harmful bacteria, helping promote a germ free environment.
- Protects tiles & grout in residential and commercial bathrooms, such as hotels, where dirt and grime build up causes discolouration and unsightly appearances
- Quicker cleaning time, and limiting the need for harsh chemicals, results in greatly reduced maintenance costs

HOW TO APPLY

EnduroShield™ can be applied in situ by professional applicators. The product is a clear liquid that is sprayed on and polished into the tiles and grout creating a permanent bond. Application comes complete with a 3 year warranty.

HOW TO SPECIFY

To make it easy to specify EnduroShield™ for your next project, a two page specification on each product is available to download at:
www.enduroshield.com/specifications

STAINLESS STEEL:

ENDUROSHIELD PROTECTION FOR STAINLESS STEEL

EnduroShield™ for Stainless Steel is a non-stick protective coating that seals the surface, making cleaning and maintenance easier. EnduroShield™ is completely invisible and does not change or alter the appearance of the surface. EnduroShield™ provides both hydrophobic and oleophobic protection, reducing both corrosion and tea staining that often forms in coastal environments. Many acidic cleaners that are used to treat corrosion that develops on stainless steel can accelerate and increase the return rate. EnduroShield™ will eliminate the need to use those cleaners, and will dramatically slow the corrosion process.

APPLICATION

COMMERCIAL & RESIDENTIAL

- Stainless Steel Balustrades and Fixtures
- Stainless Steel Facades
- Stainless Steel Kitchen Surfaces and Appliances
- Stainless Steel Tiles
- Feature and Support Poles
- Art Displays/Sculptures

FEATURES & BENEFITS

- Works on new or existing stainless steel surfaces
- Creates a protective barrier that makes cleaning and maintenance easier and quicker.
- Assists in reducing both corrosion and tea staining
- Limiting the need for harsh chemicals, and faster cleaning time results in greatly reduced maintenance costs
- Fingerprints are easier to remove

HOW TO APPLY

EnduroShield™ can be applied in factory to the stainless steel before installation or in situ by professional applicators. The product is a clear liquid that is sprayed and polished into the stainless steel creating a long lasting bond.

HOW TO SPECIFY

To make it easy to specify EnduroShield™ for your next project, a two page specification on each product is available to download at:
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✦
"EnduroShield is performing successfully on key stainless steel areas of Darling Park Stage 3 Rabo Bank Tower" M.Glading, Senior Project Engineer, Bovis Lend Lease.



TESTING:

CEMENT SLURRY TESTS

Extensive on site testing with Bovis Lend Lease has proven EnduroShield™ successful in protecting glass surfaces against etching from concrete and cement slurry during the building process. Testing has shown that glass panels treated with EnduroShield™ can be simply cleaned with a glass cleaner without the need to use razor blades. Tests were carried out where both concrete and cement slurry was poured on glass facade panels and left for extended periods. Results proved that over periods ranging from 8 days to 4 months the concrete and cement slurry was equally as easy to remove. No marks, pitting, or signs of etching were evident.



Untreated

Treated

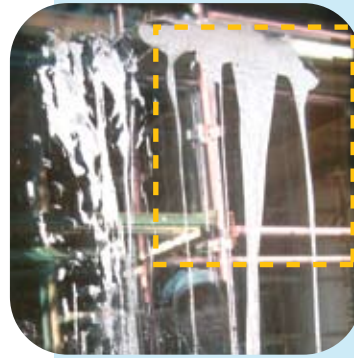
Two facade panels on a city high-rise demonstrate the results of the EnduroShield™ for glass protection after 5 months. The build up of dirt, grime and pollution is clearly reduced on the coated panel compared to the untreated panel. Results will vary depending upon conditions.

ENDUROSIELD ACCELERATED TESTING

Accelerated and field testing was successfully carried out to determine the durability and longevity of EnduroShield™ coated surfaces including:

- Resistance to washing based on Australian standard 1580-459.1
- QUV exposure tests
- Simulated durability tests
- Natural weathering based on Australian standard 1580-457.1

Tests in situ by the coast show that coated glass retains its appearance, cleaning ability, and water beading ability in the hostile salt laden conditions after more than two years exposure.



Before



After

Before: Treated with EnduroShield™ and covered in cement slurry.

After: A section at the top right of the panel was easily cleaned after 4 months, showing no signs of etching.

STAINLESS STEEL TESTING

EnduroShield™ for Stainless Steel was tested on two similar areas of severely corroded fascia panels on a high-rise building situated next to a harbour and freeway. The two panels were cleaned with a stainless steel cleaner and a scouring pad to remove the corrosion and prepare the surface. One of the panels was then coated with EnduroShield™ and monitored over a period of four months. The differences between the untreated areas and the EnduroShield™ treated areas became more apparent as time progressed. It was noted that the EnduroShield™ was effective in prolonging and controlling the rapid return of the corrosion to the surface. The images below clearly illustrate the results of the treated versus untreated panel.

After four months



Untreated



Treated

"We put EnduroShield through its paces against concrete and cement slurry and we're very impressed with the results"
L.Rollason, Facade Manager, Bovis Lend Lease.

FREQUENTLY ASKED QUESTIONS:

Will the coating crack, peel or discolour over time?

No, the coating is only 2 molecules thick and is invisible. There is nothing that will crack or discolour over time. It is unlike a traditional surface coating.

Will the coating gradually wash off with each use?

No, the product is permanent. It is unlike some products that are silicone based and wear off over a period of time.

Does the coating get attacked by chemicals?

No, the only way to remove the coating is by using a rough, gritty or abrasive cleaner or extremely high or low Ph cleaning products.

How long will the coating last on glass surfaces?

Accelerated testing, carried out equal to 10 years of cleaning, revealed that there was minimal or no change in the products efficacy.

Does the area to be treated need to be masked?

No, the product is not corrosive and will not harm fixtures, frames or fittings. If product does come in contact, it will become water repellent for a short period of time before it wears off.

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 to be used, it would not be visible where it was worn away. That area would, however, be harder to clean. The unprotected surface can be easily repaired by cleaning the area and re-spraying with EnduroShield™. The molecules will bond directly to the cleaned surface.

Do I still need to seal the tiles after I apply this product?

No, the coating not only creates an easy to clean surface, but a permanent protective barrier that resists staining.

Can I apply the product over tiles that have already been sealed with a product?

No, the product needs to be applied to untreated tiles and grout to permanently bond with the surface.

Can the product be applied to the floor?

Yes. It will not make the surface slippery. In fact it will make it less slippery. As the tile is sealed from water soaking into the surface, the water beads on top, and the conditions that cause the slipperiness are reduced. The coating may wear over time with constant foot traffic but only needs to be reapplied in these high traffic areas.

EnduroShield can be applied in factory or in situ by professional applicators.





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EnduroShield™ is a revolutionary protective coating range for glass, tiles & grout, ceramic, porcelain and stainless steel surfaces. Using state of the art nanotechnology, EnduroShield™ acts as a permanent shield to seal the porosity of the surface 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, maintaining the integrity of the surface.

EnduroShield™ continues to be specified by many leading architectural firms on projects such as commercial buildings, residential homes, public amenities, casinos, shopping centres, railway stations and libraries.

EnduroShield™ is manufactured by PCT Global, which is a 100% Australian owned company. The management team averages 25 years experience and the lead chemist is a veteran of over 30 years in the industry. The companies continuing growth is driven by a commitment to innovation, service and quality. EnduroShield™ supports a green environment. All EnduroShield™ products are alcohol based making them both low-toxicity and environmentally friendly.

EnduroShield™ is rapidly expanding internationally. To find a distributor in your region visit the Enduroshield™ website or contact PCT Global.

www.enduroshield.com

