

# Ritec: low maintenance surface technologies

*Both the industry and the end-users of glass are well aware that there is a serious need for surface protection in order to maintain the original properties of the glass, as well as to resist staining and discolouration. This article gives our readers a brief introduction to ClearShield – the company's low-maintenance glass – and a few examples of how it can be used in the architectural and marine sectors.*

**RITEC INTERNATIONAL**

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“Our aim is to develop and market internationally ‘non-stick’ surface technologies for application to new and existing surfaces.”

In 1987, Ritec International was formed by Stephen and Karen Byers. For over 25 years, the company has developed the market for glass surface protection in the flat glass industry, effectively leading the industry and gaining immense field experience with its high quality technology, the *ClearShield System*.

Ritec’s *ClearShield Low-M<sup>®</sup>* (Low-Maintenance) *Glass* has gained wide recognition and acceptance in the processing of glass as the industry and end-users of glass have become increasingly aware of the need to protect glass so that it keeps its promise of clarity, visibility and cleanliness over time.

Committed to product development and innovation, Ritec has not only built on its expertise for the protection of glass but also developed a fully integrated system for the renovation, protection and maintenance of glass. Its range of quality products provides solutions to all glass users, whether applied in the factory or onsite.

Today, hundreds of glass processors and fabricators worldwide enjoy the benefits of the *ClearShield System* in a wide range of applications including architectural, decorative, shower enclosure, marine, railway and residential glass.

The performance of *ClearShield* is now well recognized by the industry, and has proven

results based not only on laboratory tests but more importantly on years of experience.

Because of the worldwide demand for surface protection technologies, Ritec has an extensive network of joint venture and marketing partners globally offering Ritec products.

Ritec’s expertise has allowed the company to develop technologies for the renovation, protection and maintenance of other surfaces. This includes the *Ritecoat System* for metals and powder coat surfaces, the *VoltShield System* for ceramic electrical insulators, *SE-550 Silicone Eater* and *Ritepolish*, a versatile surface cleaner.

## WHAT IS CLEARSHIELD

Ritec’s award-winning *ClearShield System* has been specially developed for the renovation, protection and maintenance of both new and already installed glass.

*ClearShield* protected glass:

- is always easier to clean and keep clean;
- stays cleaner for longer; and
- resists staining and discolouration.

Benefits from choosing *ClearShield*:

- added value for higher profits for glass manufacturers and fabricators;
- unique renovation solutions for already installed surfaces;
- sales, marketing and technical support.

A comprehensive package for glass manufacturers, processors and fabricators:

- superior quality of glass for added value to help increase sales and profits;
- a technology that has proven its claims with

more than 25 years experience worldwide;

- unique Selling Points to differentiate from the competition;

- a system that offers personalized solutions to all glass users;

- safe and non-hazardous products;

- versatile methods of application that can adapt to all volumes of production;

- unique renovation solutions for already installed glass;

- local supply, training





Because of this, cleaning glass becomes more difficult and, therefore, visibility deteriorates.

ClearShield is a polymeric resin and, when applied to ordinary glass, it cross-links to form a strong chemical bond. ClearShield is completely transparent, chemically inert, non-hazardous and UV stable. Unlike a coating, ClearShield becomes part of the glass so will not peel, flake or crack.

The result is ClearShield Low-M® (Low-Maintenance) Glass that prevents contaminants from bonding to the surface and limits further damage caused by corrosion and chemical attack. Dirt can easily be removed using normal cleaning methods.

### ARCHITECTURE AND BUILDINGS

For architects, building contractors, building owners and facilities managers, ClearShield gives the following benefits:

- reduces construction and maintenance costs and delays;
- keeps glass looking like new and pristine appearance of façades;
- increases satisfaction of tenants and occupiers.

#### *During construction*

Building contractors face the problem of concrete splatter, cement dust and slurry and other types of alkaline construction materials damaging and corroding the surface of glass on building sites.

ClearShield helps to reduce:

- remedial work and costly replacement for glass surface damage;
- costs from unsatisfactory final builder's clean or call-backs;
- delayed certification on glazing handover.

#### *After construction*

Inevitably, unprotected glass becomes contaminated over time, ruining a building's appearance. Typical contaminants include concrete and silicone run-off, traffic fumes, tree sap and bird lime.

The result is costly and cleaning becomes more and more difficult. With ClearShield already installed however, this means:

- less use of access equipment to maintain the glass clean;



and subsequent sales, marketing and technical support through international network of distributors;

- effective demos for the sales force, show-rooms and trade exhibitions.

### HOW IT WORKS – GLASS CORROSION

Just as metal rusts, glass is subjected to a corrosion process caused by reactions between the glass surface and gases in the atmosphere. Even a single droplet of moisture on unprotected glass can produce sufficient damage to be visible in good lighting:

The surface of glass is not smooth and consists of microscopic peaks and potholes. Both organic and inorganic contaminants fill these potholes and chemically react with the glass, firmly bonding to the surface.

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- increased effectiveness and reduced frequency of window washing;
- glass stays cleaner for longer.

## *ClearShield protection*

The benefits of ClearShield Low-M go far beyond its easy-to-clean properties. It protects the glass surface from damage caused by corrosion, weathering and chemical contamination.

For glass already contaminated during or after construction, Ritec's specialist onsite team can renovate contaminated glass to its original 'as-new' appearance and then provide effective protection from future contamination.

## **MARINE**

### *Princess Cruises*

The first Princess Cruises ships to have ClearShield were the Regal Princess and the Crown Princess. Exterior glass of these ships was renovated and protected in 1987. Since then, more than 10 other Princess Cruise ships have had the benefit of ClearShield protection.

"Not only do the operators of these ships appreciate the benefits in keeping windows clean, but also the considerable savings in manpower through reduced maintenance," said the company's Project Manager.

### *ACL Atlantic Conveyor*

The Atlantic Conveyor (owned in 1985 by Cunard but purchased by ACL ten years later) was treated on-site with ClearShield.

The Chief Officer of Cunard was impressed: "The improvement in visibility through our bridge windows, in rain and heavy weather, has to be seen to be believed. A further bonus is not having to use precious manpower to wash the

windows... we have just completed two winter crossings of the North Atlantic without having to once wash them manually. It is truly pleasing to see a product that really lives up to its marketing promises."

### *Silja Lines*

The exterior glass on a number of Silja ships had ClearShield applied to them. In addition, some interior glass, for example, in swimming pool areas or restaurants, were also treated so cleaning frequency is significantly reduced.

In total, almost 1,000 square metres of glass on four ships were treated. Now the crews have a clearer, safer view from the bridge and passengers can enjoy a better sea view. ■



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