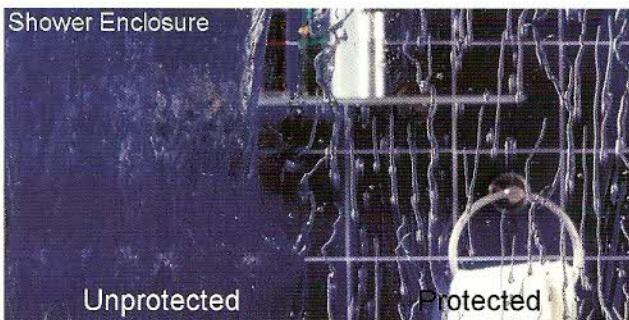




ClearShield Low-M (Low-Maintenance) Glass®

ClearShield Low-M Glass® is a higher quality of glass with exceptional visibility, sparkling appearance and ease of cleaning. Working like 'non-stick' cookware, ClearShield Low-M Glass® is always much easier to clean, low in maintenance, on average reducing cleaning frequency by half, and resists staining and discolouration.



Introduction Glass is subjected to a corrosion process that often results in loss of visibility, difficult cleaning and a spoiled appearance. This is caused by weathering due to environmental conditions and construction materials such as concrete splatter, cement dust and slurry.

Finger marks on sandblasted glass and limescale staining in shower enclosures are also common problems.

The ClearShield system provides a complete range of solutions, converting new or already installed glass into ClearShield Low-M Glass®.

Applications ClearShield is highly effective for both exterior and interior glazing, including all types of commercial and residential buildings, leisure centres, decorative glass, shower enclosures, mirrors, glass furniture, marine vessels and photovoltaic cells.

DESCRIPTION

The ClearShield system has over 20 years of successful field experience.

• Renovation
The renovation process restores the surface of all types of problem glass already installed to an 'as new' condition when regular washing has become costly or ineffective.

• Protection
ClearShield is applied to glass in situ to prevent further staining and loss of performance once the renovation process has been carried out, or in the factory before installation. ClearShield is a polymeric resin that cross-links with

the glass and itself, forming a strong chemical bond. The result is a multi-molecular protection less than 1 micron in thickness that is non-tinted, completely transparent, chemically inert and non-hazardous.

• Maintenance
As a guide, the ClearShield protection will last up to 10 years on vertical glazing installed externally, provided a simple and economic aftercare programme is followed. Durability may vary depending on the location and environmental conditions.

PERFORMANCE

Weather
Humidity Temperature cycle for 22 days at 100% relative humidity – significantly less weight loss than on untreated control samples.
Salt spray 100 hour test – pass.
Weatherometer To BS 3900: 2000 hours – pass.

Mechanics
Coefficient of friction Measured on inclined surface – 30-40% less friction on treated samples.
Mechanical abrasion Exceptional wear resistance demonstrated.

Chemical
Alkali attack ISO 695 – significantly less weight loss than on untreated samples.
Migration No migration from treated to untreated areas after curing.
Resistance to cleaning compounds Excellent resistance except to abrasive cleaners.

Biological
Algae/lime deposits Significantly easier removal from treated samples.



Bacteria adherence Twenty-fold reduction in bacteria count on treated sample.

Heat
Autoclave Steam resistance – to ISO 4802 – pass.
Freeze/thaw cycles 20 cycles – pass.

Light
Light transmission No detectable reduction on treated samples.
UV light Stable.

Compatibility
Paint adhesion BS 3900: ClearShield can be removed from non-vitreous surfaces such as timber and metals with warm detergent wash; subsequent paint adhesion unaffected.

SUPPLY
ClearShield Low-M Glass® is available from specially-trained manufacturers and fabricators, a list of whom is available from Ritec.

SERVICES
Ritec's specialist onsite application team is available for site surveys and evaluations for glass already installed.

REFERENCES

For further information see Keyfile Libraries section Ro.

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