

# Glass cleaning, handling and storage



# Hand and professional cleaning

SOLOS Glass offers these recommendations for hand cleaning as a general guide only and it is recommended that advice should be sought from professional window cleaners or reputable glazing companies.

It should be noted that in addition to the general cleaning guidelines offered there also exists specific recommendations for particular glass types, also listed within this document, for which it is recommended that particular methods of cleaning are undertaken and/or specific cleaning products used. With regards to glass storage and handling recommendations, please be advised that other methods exist which the user may wish to undertake. However, it is strongly recommended that professional advice is sought as to the appropriateness of the method being considered.

## PRO TIP

It is important to ensure that cleaning solutions are not allowed to come in contact with the edges of laminated glass, painted products or mirrors.



# General hand cleaning

Uncoated annealed, heat treated, laminated and texture glass.

There are a number of different glass cleaning products available from shops and supermarkets which will effectively clean these glass products and prevent streaking on the glass surface, for example Windex® Colourless Multi-Surface Cleaner or a number of vinegar based products.

The cleaning of heat treated glass (toughened or heat strengthened glass) requires special attention. Often the glass surface opposite to the surface with the toughened glass standards compliance logo will have 'pickup' on the glass surface. Hardly detectable to the human eye, it is important that cleaning of this surface does not disturb any pick up that may be there. As such, it is not advisable to use blades or any form of scalpel to clean this glass surface as these micro deposits may become smeared across the surface of the heat treated glass and damage the glass surface. The cleaning method used for heat treated glass should be the same as per immediately below, utilising a clean lint free cloth with a cleaning solution.

## Cleaning method ✓

- Ensure any jewellery or watches are removed before cleaning commences as they may mark or scratch the glass surface.
- Generously spray or cover the glass surface with the solution and wipe with a clean, lint free cloth, making sure the cleaning materials are free of grit.
- Wipe dry with a clean, lint free cloth.
- Stop wiping just prior to the glass completely drying to prevent streaking.

A simple cleaning solution:

1 part vinegar + 10 parts water

## Things to avoid ✗

- Do not attempt to clean the glass when it is hot or in direct sunlight as the sun can prematurely dry the solution, leaving streaks which can be laborious to clean.
- Do not use abrasive cleaners, powder based cleaners or cleaning agents which contain hydrofluoric or phosphoric acid as they can permanently damage the glass surface.
- Do not use abrasive cleaning pads or scouring pads to clean the pads or in an attempt to remove stubborn stains.
- Do not use tapes or adhesives to try and remove marks or stains as these can permanently mark the surface.
- Do not splash cold water on hot glass or hot water on cold glass as this may lead to thermal fracture.
- For laminated glass, ensure that cleaning solutions are not allowed to come into contact with the glass edge.

# Specialist hand cleaning

KlymetShield™ and other single glazed coated glass types with an exposed Low E coated surface

The cleaning of the non-coated surface of the glass should be undertaken in line with the recommendations outlined previously.

It should be recognised that glass with an exposed Low E surface is a specialist glass which requires extra care and attention when cleaning. Whilst the coating is very hard and particularly durable, it cleans differently to non-coated glass. The recommended cleaning solution for the coating associated with these glass types is Windex® Colourless Multi Surface Cleaner or a solution made up of one part vinegar with 10 parts water. It is not advisable to use ammonia based cleaning solutions or alcohol based solutions as they can leave visible streaks.

## Cleaning method ✓

- Ensure any jewellery or watches are removed before cleaning commences as they may mark or scratch the glass surface.
- Generously spray or cover the glass surface with the solution and wipe with a clean, lint free cloth, making sure the cleaning materials are free of grit.
- Wipe dry with a clean, lint free cloth.
- Stop wiping just prior to the glass completely drying to prevent streaking.
- Spot cleaning can take place by using Acetone, but only strictly in accordance with the manufacturer's recommendations.

## Things to avoid ✗

- NEVER use razor blades, metal tools, scouring pads, steel wool or any abrasive materials/ metallic objects to clean the coated surface. Because the coated surface of the glass is so hard it actually removes metal from the tool or pad and deposits it on the glass surface making it particularly difficult to remove.
- Do not use a squeegee to clean the internal (coated) surface.
- Do not attempt to clean the glass when it is hot or in direct sunlight as the sun can prematurely dry the solution, leaving streaks which can be laborious to clean.
- Do not use abrasive cleaners, powder based cleaners or cleaning agents which contain hydrofluoric or phosphoric acid as they can permanently damage the glass surface.
- Do not use abrasive cleaning pads or scouring pads to clean the pads or in an attempt to remove stubborn stains.
- Do not use tapes or adhesives to try and remove marks or stains as these can permanently mark the surface.

# Specialist hand cleaning

DecorSafe™, ThermoColour™ and ColorSmart™

DecorSafe™, ThermoColour™ and ColorSmart™ are specialised products with coated painted surfaces which, whilst very robust and durable, require careful attention whilst cleaning to ensure that the coated surface is protected appropriately.

## Cleaning method ✓

- Ensure any jewellery or watches are removed before cleaning commences as they may mark or scratch the glass surface.
- Sparingly apply a few drops of methylated spirits to the glass surface with a clean, damp lint free cloth ensuring no methylated spirits are spilled onto the edges of the glass. It is important to ensure that the methylated spirits is used strictly in accordance with the manufacturers recommendations.

## Things to avoid ✗

- Make sure that when cleaning the face of the glass panel there is no contact with the backing paint/coating, particularly at the edge of the glass.
- Keep any moisture away from the edge of the glass.
- Do not attempt to clean the glass when it is hot or in direct sunlight as the sun can prematurely dry the solution, leaving streaks which can be laborious to clean.
- Do not use abrasive cleaners, powder based cleaners or cleaning agents which contain hydrofluoric or phosphoric acid as they can permanently damage the glass and painted/coated surface.
- Do not use abrasive cleaning pads or scouring pads to clean the pads or in an attempt to remove stubborn stains and ensure any cleaning cloths are free of dirt and foreign materials.
- Do not use tapes or adhesives to try and remove marks or stains as these can permanently mark the surface.



# Specialist mirror cleaning

Valleta™, Valleta™ VB, Valleta™ Safe and Valleta™ Venetian mirrored products

Whether it's a wardrobe door, a framed mirror in the hall or a feature mirror in the bathroom or changing room, nothing looks better than a beautifully clean mirror in pristine condition.

Maintaining the appearance and condition of a mirror is essential to retaining that beauty and ensuring longevity of performance.

The best cleaning solution for a mirror is methylated spirits, always ensuring it is used in accordance with the manufacturers' instructions.

## PRO TIP

One of the most important factors in cleaning any mirror is to ensure that there isn't excessive fluid, water or methylated spirits applied to edge of the mirror or any moisture present on the rear backing of the mirror. It is also important to ensure that any cleaning cloths used should be free from any abrasives.

## Cleaning method ✓

- Ensure any jewellery or watches are removed before cleaning commences as they may mark or scratch the glass surface.
- Sparingly apply a few drops of methylated spirits to the glass surface with a clean, damp lint free cloth.
- Wipe and polish the glass surface dry with a clean, lint free cloth.

## Things to avoid ✗

- Do not use scouring pads, steel wool or any abrasive materials/metallic objects to clean the glass surface.
- Ensure no methylated spirits are spilled onto the edges of the glass.



# Handling and storage

## Storage of glass in factory and customers premises

Glass should be stored in clean, dry conditions, on its edge and on a surface which is NOT harder than itself. As such, there are a number of factors to consider:

- No part of the glass should be in contact with a substance which is harder than itself. As such, glass should not be in contact with stone, concrete or any ferrous metals. Further benefits can be accrued by cladding the material used to support the glass with rubber, felt or timber for example. If any screws are present on the supporting structure it is important to ensure that they are counter sunk below the surface.
  - If the glass is being stored on static racks, it is recommended that the angle/lean from the vertical should be 3°. This can be increased to 5° - 6° for glass stored on stillages, pallets or transportable racks. Increasing the angle beyond these recommended angles can lead to extra load being placed on the glass at the back of the pack with subsequent breakage being incurred.
  - Which edge the glass is stored on depends on the glass' thickness, size or availability of space in the storage premises. However, it is important to ensure that the edge of the glass is evenly supported over its surface area. Support would ideally be the total length or width of the glass, although support by flat bearers of at least 50mm width should be considered.
- With over 99% of the glasses weight loading being downward when stored at a 3° angle, it is important that the floor is strong enough to support the weight of the glass being stored on it.
  - Whether being stored or transported, each individual piece of glass should be separated by either glass interleaving materials such as Lucite®, rubber pads, paper or plastic wrapping to prevent the glass pieces rubbing together.
  - If glass is received wet, or becomes wet during storage for whatever reason, it should be separated as quickly as possible, dried and restacked using separators to aid air circulation and the drying processer.

### PRO TIP

The circulation of cool, dry air should be available to prevent staining and glass should not be stored in direct sunlight.



# Handling and storage

## Storage of glass in factory and customers premises

### Types of storage

- There are a number of different types of storage racking available, each type designed for either the size of glass, the type of warehouse, the method of handling available or the volume of glass needing to be stored or handled. Whether the method of storage used are wall racks, end caps, toast racks, glass supporting frames, A frames or pallets, there are specific guidelines for each type to ensure safe and appropriate storage which should be discussed with the manufacturer or distributor of the storage racks prior to installation.

### Storage of glass on site

Whilst each site will be different and the areas to focus on possibly unique, there are a number of potentially hazardous areas which need to be considered. These include, but are not limited to:

- The suitability of the ground to safely store and protect the glass with suitable racking.
- Sufficient access and space to safely unload manoeuvre and store the glass.
- The ability to provide dry storage conditions out of direct sunlight; this is applicable to all types of glass but especially tinted or toned glass which absorbs a high % of the heat.

- The need to protect the glass from accidental damage or site contamination caused by other materials and building practices which may induce breakage or damage to the glass such as welding, sandblasting, floor sanding etc.
- Protection from freak weather conditions, such as high winds.

### Handling of glass

Glass is a potentially dangerous material, particularly if handled incorrectly. It is imperative that suitable training must be given to all employees who handle glass either in the warehouse or on site to ensure that they can best protect themselves and those around them. This applies to all types of glass, of any size.

Whilst mechanical means of moving the glass should be initially investigated and adopted, it is recognised that this is not always possible. If the glass has to be moved manually, the load associated with the glass must be able to be suitably managed by the number of people moving the glass, with any physical restrictions relating to the people involved being noted and managed accordingly. This may be achieved through the use of straps or slings, webbing lifts, suction pads or glass carriers.

Whilst the size and the thickness of a particular piece of glass will determine the number of people required to lift the glass, a number of key factors apply regardless:

- Correct PPE is being used at all times.
- The condition of the glass must be checked, in particular checking for any venting or glass runs present.
- Ensure that there is plenty of space available to manoeuvre, that any potential obstacles have either been noted and/or moved and that the pathway is dry.
- The destination of the glass has been prepared with appropriately prepared racking or storage in place.
- A safe lifting posture should always be adopted.

### PRO TIP

When lifting the glass, ensure that it is kept as upright as possible without any flexing of the glass taking place.

This information is provided as a guide only and is not intended to substitute for specific and detailed advice. SOLLOS Glass disclaims any liability for any loss or damage resulting from the use of such advice. Specific or specialised advice should always be sought from a professional cleaning service or glazing Company prior to undertaking any cleaning.