

The AGC logo, consisting of the letters 'AGC' in a bold, blue, sans-serif font. The letter 'A' is blue, 'G' is blue, and 'C' is blue with a small red square on its top right corner.

# FACADE GLAZING

## CLEANING, MAINTENANCE AND INSPECTION GUIDE FOR PYROLYTIC COATED GLASS

VERSION 1.0 – January 2022

Your Dreams, Our Challenge

This version of the guide replaces and cancels all previous versions.  
Please check [agc-glassasia.com](http://agc-glassasia.com) regularly for any updates.

# WARNING

Carefully read this manual before any cleaning and maintenance of facade glazing.



## Preliminary Important Instructions

Glass is, by its very nature, durable, tough and easy to maintain. By following the guidelines in this document, you can ensure that it stays clean and bright for many years.

- Execute the cleaning and maintenance of glazing in safe conditions. Wear the necessary personal protection equipment at all times and take the necessary actions for glazing difficult in access. Refer to the safety-rules and -instructions defined by the national or local administration, the cleaning associations and requirements described by the end-user (company of private person).
- Carefully read the manual of the chemical agents and detergents used. Comply with the instruction manuals. When in doubt, contact the manufacturer. Try to limit their use to the very strict minimum.
- All products containing hydrofluoric acid or fluorine derivatives are prohibited since they can damage the coating and the surface of the glass.
- Highly acidic and alkaline products are prohibited, as they are abrasive products.
- Ensure the chemical compatibility between the products used and other components (seals, paints used on the frame, aluminium, stone, etc.).
- When carrying out the special cleaning regimen, always start with a trial on a small area.
- Do not wash the glass when it is fully exposed to the sun. Avoid washing it when it is too cold or hot.
- Take advantage of the washing process to inspect the seals, drainage and frame.
- Make sure that cloths, squeegees and other tools are in good condition at all times.

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## 1. PRECAUTION DURING INSTALLATION

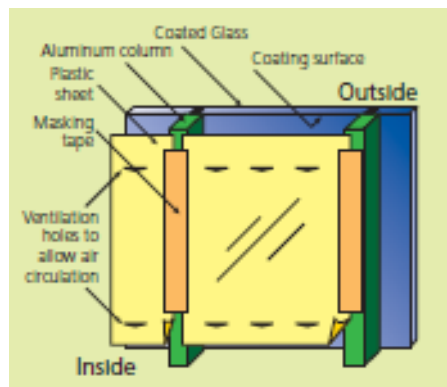
When glass is cleaned for the first time after being installed, it may be particularly dirty or suffer from splashes of cement, rusty deposits or soldering stains. We recommend the following steps:

- Remove any label, adhesive cork or interlayers immediately after fitting the glazing. If there is any difficulty in doing so, solvents such as methanol, ethanol, isopropanol, acetone, trichloroethylene may be used.
- Fingerprints and grease or mastic stains can be removed with solvents such as acetone, ethanol or ammonia provided that these products do not attack the seals and penetrate into the rebate.
- Remove any trace of sealing compounds, putty, rust or cement using a specially designed scraper or a razor blade. before they harden on the glazing. There is a risk of scratching the glass, so take great care at all times.
- Avoid writing on the glass with chalks or any other instruments.
- Beware! Soldering stains destroy glazing: they must be replaced.
- Glazing should be cleaned once building work is completed.

## 2. PROTECTION OF GLAZING ON SITE

During construction work, glazing can suffer from splashes of cement, rusty deposits or soldering stains. Protecting glazing on-site is the best way of avoiding this kind of damages. Generally, glass that has been installed should be well protected.

- We recommend taping a plastic film to the aluminium column using masking-tape (see diagram). This will help to protect the glass (i.e. coated surface) and at the same time leave a gap between the glass coating and the plastic film, allowing the glass to "breathe".



- For other protection methods, such as self-adhesive film or roll-on film applications, user must verify its compatibility with the manufacturer. Care must be taken as some films applied directly onto the coating may leave residues, which would be difficult or impossible to remove later (especially those under long-term application or areas that are exposed to direct solar heat).

### 3. GENERAL CLEANING REGIME

AGC's coated glass do not require the use of strong solvents for most cleaning routines, thus it will be beneficial in the long-term as your maintenance routine will be less costly and more environmentally conscious.

#### FOR NORMAL CLEANING

- In most cases, glass can be washed with plenty of clean water. Sometimes a bit of neutral detergent or an appropriate commercial cleaning product can be added to the water. A squeegee or specially designed cloths are also used.
- Once cleaned, the glass should be rinsed with clean water and wiped with a squeegee.

#### FOR TOUGHER STAINS

- In some cases if necessary, fingerprints, fat stains or putty can be removed with solvents such as: Acetone, Diluted Ammonia, Ethanol, and Isopropyl Alcohol.
- Remove oily spots and other organic pollution with solvents such as isopropyl alcohol or acetone applied with a soft, clean cloth.
- These solvents are safe to use provided they do not attack the gaskets, sealants or finishes of the window (to be tested before cleaning).
- Rinse thoroughly and follow through with the Normal Cleaning regime.
- To maintain the good condition of the coating no products like alkaline or acidic solutions may be used, especially those containing chlorine, sulfur, fluorine or alkalis.
- Cleaning by bleach is only recommended for glass side and not on the coated glass side.

#### FOR DIFFICULT CLEANING

- In areas with high level of pollution or for glasses which have not been cleaned regularly or which are still soiled after cleaning, the following can be used: A suspension of cerium oxide in clean water in a concentration varying between 50 and 160g/litre can be used to clean the uncoated glass side. Additionally, prior to using cerium oxide, hot water can be applied independently to the glass surface as the high temperature helps to lift stubborn stains.
- Wash glass with a soft cloth soaked in the solution using slight pressure. Never insist on local stains but clean the whole glass several times if necessary.
- Remember to rinse the glass thoroughly after treatment followed with the Normal Cleaning regime.
- Never use hard means of cleaning such as steel wool, razor blade, hard abrasive powder, etc.

#### FREQUENCY

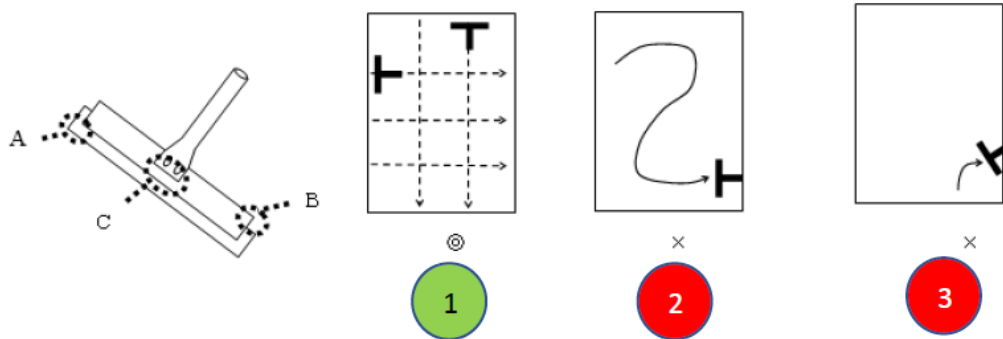
How often the glass needs to be cleaned will depend on the surrounding environmental conditions and pollution levels. Glass gets dirtier in dusty, industrial areas, in areas with lots of road traffic, near the sea, and when it is not exposed to very much rain. Failure to take certain precautions when designing the facade or installing the glass can also play a role. (e.g.: ,a roof glazing shall have a minimum slope of 10° vs horizontal). Glass should be cleaned frequently enough so that the ordinary cleaning regimen described above is sufficient.

## SQUEEGEE USAGE GUIDE

Position 1- correct.

Position 2- incorrect usage position, Part A and B may scratch the coated surface.

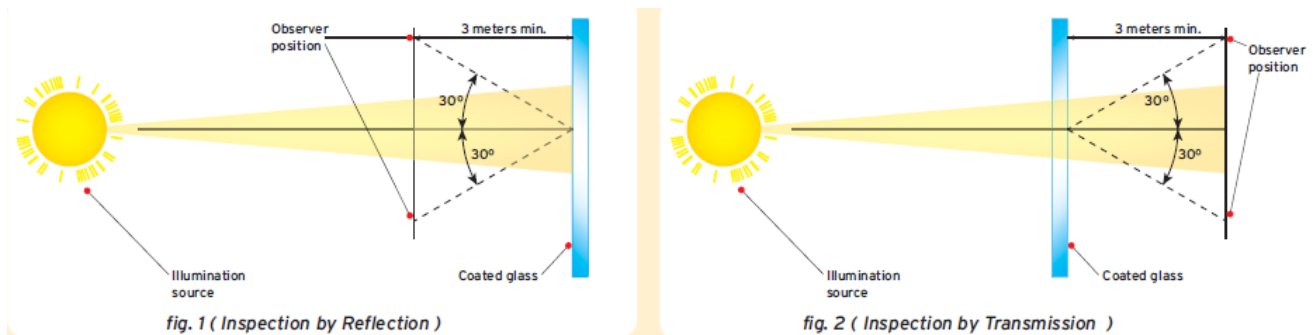
Position 3- incorrect usage position, Part C may scratch the coated surface.



## 4. GENERAL INSPECTION GUIDELINES

### VISION IN GENERAL

At a distance of 3 meters, against a uniform light source AGC's solar control coated glass may show slight variations of color, both in transmission and reflection. These are considered normal and acceptable.



### SPANDRELS IN GENERAL

Spandrel areas are to be viewed in reflection at a distance of 4.5 meters with a uniform background and with natural lighting conditions. Color and reflectance may vary slightly within this distance. Pinholes and scratches that are not readily apparent when observed in reflection are acceptable.

### PINHOLES IN VISION GLAZING

Pinholes visible from 3 meters and measuring up to 3mm in diameter shall be acceptable. Pinholes with the diameter above 3mm are not acceptable.

### SCRATCHES IN VISION GLAZING

Scratches visible from 3 meters and measuring up to 75mm in length shall be acceptable. Scratches over 75mm are generally not acceptable.

## 5. SPECIAL INSTRUCTIONS FOR COATED GLASS

Coated glass - specifically Stopsol, Sunergy, Planibel G - have a metal oxide coating that is applied to the glass. These coatings are very resistant and durable.

No particular precautions need to be taken when the coating is positioned on the inside of the insulating glazing unit (position 2 or 3, i.e. in contact with the air/gas layer).

In single glazing or when the coating is located on the outside of the insulating glazing unit (position 1, external side of the building, or position 4, internal side of the building), the cleaning regimens described above are also suitable. However, bear in mind that a transparent and very thin metal surface is being washed.

Remember:

Any scratching will penetrate the surface of the coating and cannot be repaired.

Any excessive mechanical treatment might remove the coating in localized areas.

Avoid all contact with metal objects.

Avoid all chemicals that would attack the surface and damage it irreparably.

Consequently, special care should be taken to follow the guidelines and precautions set out in this document. In areas with high levels of pollution, treatments and products supplied by experienced professionals are essential.

## 6. PREVENTION

Taking steps to prevent the build-up of dirt is the best way to prevent cleaning problems and lowering cleaning costs. For example:

### **DURING THE DESIGN PHASE**

Make sure that water drainage and discharge systems are in place to prevent runoffs of polluted water over the glass. Water tends to gather pollutants as it runs over bricks, concrete, zinc, roofing materials and so on.

Make sure that it is possible to gain access to the glass so that it can be cleaned.

### **DURING THE INSTALLATION PHASE**

Prevent runoff from plaster, concrete, rust, excessive dust, etc.

Prevent pollution and spatters of paint, facade treatment products, etc.

Prevent metal from welding or grinding from coming into contact with the glass. This kind of damage cannot be repaired.

Where necessary, protect the glass with a tarpaulin or plastic sheet, making sure to provide a dry, well-ventilated air space.

Do not use sealants, putties, oils, silicones, etc. that leave streaks on the glass.

Comply with the instruction manuals.