

MAINTENANCE INSTRUCTIONS

Maintenance instructions

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Maintenance Instructions

1. Introduction

We manufacture and install wooden windows and doors of highest quality. We use high-quality materials which we process with greatest care.

You, as our customer, will experience joy with our products for many years if the windows are protected in the construction phase and the following maintenance instructions are adhered to. As the case may be, neglected protection or improper cleaning of the paint and stain surfaces may lead to irreparable damage already during the construction phase.

We would gladly take the annual maintenance of your units in hand. In combination with a maintenance agreement - we then extend the warranty period to 5 years. We would be glad to be granted the opportunity of drawing up a quotation.

2. Protection of the Elements

2.1 Why is protection necessary

During the construction period the elements may, among others, be damaged by improper operation, by contamination and by unprofessional cleaning. This damage is in part irreparable (e.g. scratched glass)

If damage is incurred the financial and time input is always very high to eliminate this said damage.

If protection is adequate and carried out consequently, damage can be avoided. This is the only way by which elements can be handed over in a perfect condition upon termination of the construction period.

Please observe our cleaning instructions for elements drawn up under Point 3.

Please also inform your architects, construction site supervisor and the craftsmen at your site who are involved in the construction work correspondingly.

Should you have questions in this connection, please contact us.

2.2 How can protection be handled

If necessary (when work is being carried out next to the window or in the vicinity) and/or construction dust accumulates, the windows have to be protected by a plastic foil or a plywood cover.

Protection of the units is the responsibility of the subsequent trade.

3. Cleaning and Maintenance Instructions

Regular cleaning and maintenance is the prerequisite for a long life and the perfect operational operability of these high-quality products.
The cleaning and maintenance agents must be adjusted to the materials we have used.

Generally acids (e.g. diluted hydrochloric acid), detergents containing solvents and abrasive detergents may **not** be used as they can cause irreparable damage.

3.1 Glass

3.1.1 In the course of construction

Generally any aggressive contamination is to be avoided in the course of construction. Should contamination nevertheless be experienced, the contamination has to be washed off residue-free **immediately** upon occurrence by the originator with non-aggressive detergents. Particularly concrete and cement sludge, plaster and mortar are highly alkaline and lead to the glass being cauterised, (being tarnished). Contamination of this type is to be rinsed off **immediately** using plenty of water. Dusty and granular deposits may by no means be removed when dry, otherwise the glass surface would be scratched.

A minimization of contamination can be achieved by optimizing the course of construction and by protective measures, e.g. the application of protective foils in front of the windows.

3.1.2 Cleaning specifications for glass

When cleaning glass always work with plenty of clean water to avoid an abrasive effect caused by the dirt particles. The tools to be used are soft, clean sponges, cloths or rubber wipers. The cleaning effect may be supported by using neutral detergents or customary household glass cleanser. To clean grease or residues of caulk the use of ethyl alcohol is recommended.

Alkali brine, acids and agents containing fluoride may, as a rule, not be used.

The use of sharp-edged, metal objects, i.e. blades or knives, may cause damage to the surfaces (scratches). Cleaning the glass surface with a glass scraper is impermissible.

If damage is detected that has been caused by cleaning while carrying out the cleaning work, this work has to be interrupted immediately and the necessary information has to be obtained on how further damage can be avoided.

3.2 Paint and stain surfaces

3.2.1 In the course of construction

For paint and stain finishes the same applies as described under Point 3.1.1. Here again, any aggressive contamination is to be avoided. Particularly highly alkaline contamination may lead to an alkali burn of the surfaces, it is irreparable. Already the settling of construction dust (concrete, cement, plaster, mortar etc.) in connection with rain water forms an alkaline solution that corrodes the paint / stain. If such a contamination should be experienced cleansing with plenty of water should be taken in hand **immediately**.

In this connection the following cleaning recommendation: construction dust (concrete, cement, plaster, mortar etc.): must be removed **immediately** before the next rainfall, before cleaning the glass respectively. The dust should be suction-cleaned, then glass and paint/stain surfaces are cleaned with plenty of water (without detergents).

3.2.2 Maintenance of the finish

Upon completion of the construction phase the deposit of construction dust is no longer expected. Cleaning may be effected with plenty of clean water as described under Point 3.1.2 for glass.

After cleaning the painted surfaces the maintenance emulsion "Quick + Easy" should be applied 1 or 2 x annually. This applies ideally also during the construction phase. (Handling instructions see 4.5.1)

If damage to the surface has been ascertained this shall be corrected professionally immediately.

In this connection refer to our handling instructions in connection with refurbishment coats of paint/stain (Points 4.5.3 and 4.5.5).

3.3 Hardware

3.3.1 Cleaning the hardware

After the construction phase the hardware has to be cleaned as required. Possible contamination from construction has to be eliminated as this is often the cause behind sluggish operation. As is the case for the entire window element, the hardware may also only be cleaned using mild, neutral detergents in dissolved form. Preliminary cleaning by dust suction (vacuum cleaner) is recommended. Under no circumstances may aggressive detergents containing acid or scouring agents be used as these could corrode the corrosion protection of the hardware.

Should operable parts and locking points have to be cleaned these have to be greased or oiled after cleaning.

3.3.2 Maintenance of the hardware

To ensure that the free movement and perfect operability of the hardware is maintained, all the operable parts and the locking points have to undergo maintenance at regular intervals. Apart from setting and adjusting the hardware requires greasing and oiling exclusively with acid-free and non-resinous lubricants such as e.g. WD 40 (multi-operation oil).

Maintenance should be carried out at least once annually.

4. Maintenance Instructions

4.1 Introduction

High-quality wooden windows and doors are articles of daily use, their maintenance and utilisation safety and usability require regular maintenance and repairs.

Apart from regular cleaning and maintenance (refer to Point 3) we recommend annual maintenance of the windows (adjustment and lubricating the hardware, checking and possibly retouching the finish, checking the seals etc.).

Furthermore we recommend additional maintenance to the outdoor surfaces with maintenance emulsion Quick & Easy (in this connection refer to Point 4.5.1).

Our trained specialist employees would gladly deal with the maintenance of your windows.

4.2 Cleaning and Maintenance

The regular cleaning and maintenance is a prerequisite for maintaining the lifetime operability of these high-quality products. The exterior and interior surfaces, in the case of windows also the meeting stile areas, have to be cleaned. In this connection please use cleaning agents that do not corrode the materials (in this connection refer to Points 3.1.2 to 3.3.2).

4.3 Maintenance

All elements have to be checked at regular intervals for damage and deformation. This also includes the building joints and special components (e.g. sun protection equipment, screens, roll shutters, etc.).

The paint and stain finishes require particular attention. They have to be checked at regular intervals and damage of foreign influence or from weathering has to be touched up immediately.

Likewise security-relevant components require checking. They have to be checked at regular intervals for tight fitting and wear and tear. Operable parts have to be lubricated with suitable substances, see Point 3.3.2. in this connection

This work should be carried out once annually.

4.4 Maintenance agreement

The windows and their components are subject to wear and tear, among others due to

- Use/utilisation
- Movements of the building
- Operation of the hardware
- Influence of the weather
- UV radiation
- Corrosion.

To allow you to rely on the perfect operability of the windows at all times, you should handover the annual maintenance to specialists. We gladly offer our maintenance agreement in this connection.

In our maintenance agreement the scope of services for the job is described in detail, e.g.:

- Checking framework materials
- Checking and adjusting the hardware
- Lubricating the hardware
- Checking the contact seals
- Checking and possibly retouching glass sealing
- Checking glazing
- Checking drainage hardware
- Checking the seal between the window frame and the construction body.
- Checking the surfaces, and if necessary touching up surface damage

After maintenance has been carried out you will receive a status report on your windows.

We can also extend the warranty to 5 years in connection with our maintenance agreement.

4.5 Processing instructions

4.5.1 Maintenance emulsion Quick & Easy

Quick & Easy is a transparent, water-based maintenance emulsion from Glasurit. It was especially developed for the maintenance and protection of Glasurit paint and stain surfaces. In the case of regular application the life of the paint and stain surfaces are considerably increased.

- The application of Quick & Easy should be carried out 2 x annually (if the windows are exposed to direct, strong sunlight) or 1 x annually (if the windows are exposed to normal sunlight).
- Before application the windows should be cleaned with clear water (after possible dust has been vacuumed off).
- Before applying Q & E the surface must be dry.
- Apply a thin layer of Q & E with a soft cloth or sponge.
- In the case of large surfaces (e.g. panels) dilute Q & E with water at a ratio of 1:1.

- Re-wipe the surfaces with a soft cloth immediately after application.
- Drying time is approx. 1 hour
- When applying Q&E the environmental temperature must be in between 40-70° Fahrenheit.
- Q & E is only for the maintenance and “refreshing” of finishes. Should the finish have weathered resulting in finish damages a refreshing or refurbishing coat should be applied.

4.5.2 Stain refresh coat

- In preparation clean the windows with a neutral detergent (household cleaner, e.g. Mr. Clean). (Should dust contamination be high, first vacuum clean). Follow up by rinsing with plenty of water. Then allow the surfaces to dry.
- After drying grind slightly using sandpaper of 150 – 220 grit. Take care that no edges are ground down. Dedust the surface (at best using a moistened cloth).
Note: The glass caulk must not be sanded! Also take care that the glass is not sanded (otherwise the scratches to the glass are irreparable)!
- Apply 1x thin layer of stain.
Apply as much material as is needed for a good finish without forming tears.
Allow finish to dry (for water-based stains drying time amounts to at least 4 hours, in the case of solvent-based stains allow to dry overnight).
- Apply the second layer within 2 days (as described above).

Tools

- High-quality acrylic paintbrushes with split bristles (results in smooth finishes)

Stain

- Please only use high-quality window stain! Water-based stains (e.g. Sikkens Cetol BL 31) but also solvent-based stains (e.g. Sikkens Cetol Filter 7 or Cetol HS Color) can be used. For other paint systems always check the undercoat for compatibility.

4.5.3 Stain renovation coat

Refurbishment coats to cover cracks, chips etc.

- In preparation clean the windows with a neutral detergent (household detergent, e.g. Mr. Clean). (In case of heavy contamination with dust first vacuum the dust). Then rinse with plenty of water. Then allow the surfaces to dry.
- After drying remove the flaking finish down to the wood using a scraper or a sanding machine. The recommendation is to completely remove the stain from the window members affected. Then finally sand using sandpaper of 150 grit and remove the dust from the surfaces (best with a moist cloth)
- Apply dip impregnation to the surfaces (only where the paint has been removed). Use our original dip impregnation. This ensures that the original shade of colour can be obtained again.
The dip impregnation requires about two hours to dry.

- After drying slightly resand all the surfaces with sandpaper of 150 – 220 grit. Take care that no edges of the newly primed surfaces are sanded off. Then remove the dust from the surface (best with a moist cloth).
- Fill V-grooves that are possibly open with a V-groove protection (e.g. Glasurit Elasto Fill).
- Apply 1x thin layer of stain.
Apply just enough stain to achieve a good coating without the formation of tears. Allow stain to dry (in the case of water-based stain the drying time required is at least 4 hours, for solvent-based stains allow to dry overnight):
- Apply the second layer within two days (as described above).

Tools

- High-quality acrylic paintbrushes with split bristles (results in good coating)

Stains

- Please only use high-quality window stains! Water-based stains (e.g. Sikkens Cetol BL 31) or also solvent-based stains (e.g. Sikkens Cetol Filter 7 or Cetol HS Color) may be used. In the case of other coating systems, always first check compatibility with the undercoat.

4.5.4 Paint refresh coat

- In preparation clean the windows with a neutral detergent (household cleaner, e.g. Mr. Clean). (Should dust contamination be high, first vacuum clean). Follow up by rinsing with plenty of water. Then allow the surfaces to dry.
- After drying slightly resand all the surfaces with sandpaper of 150 – 220 grit. Take care that no edges are sanded off. Then remove the dust from the surface (best with a moist cloth).
Note: The glass caulk must not be sanded! Also take care that the glass is not sanded (otherwise the scratches to the glass are irreparable)!
- Apply 1x thin coat of paint.
Apply just enough paint to achieve a good finish without the formation of tears. Allow paint to dry (in the case of water-based paint the drying time required is at least 4 hours, for solvent-based paints allow to dry overnight):
- Apply the second coat within two days (as described above).

Tools

- High-quality acrylic paintbrush with split bristles (results in good coating cover)

Paints

- Please only use high-quality window paint! Water-based paint (e.g. Sikkens Rubbol BL Satin) but also solvent-based paints (e.g. Sikkens Rubbol Ventura Satin) may be used. In the case of other coating systems, always first check compatibility with the undercoat.

4.5.5 Paint refurbishment coat

Refurbishment coats to cover cracks, chips etc.

- In preparation clean the windows with a neutral detergent (household cleaner, e.g. Mr. Clean). (Should dust contamination be high, first vacuum clean). Follow up by rinsing with plenty of water. Then allow the surfaces to dry.
- After drying remove the flaking paint with a grinder followed by sandpaper of 150 grit and dedust the surface (at best using a moistened cloth).
- Apply primer to the surfaces (only where the paint has been removed). A standard white window primer may be used.
- After drying slightly resand all the surfaces with sandpaper of 150 – 220 grit. Take care that no edges of the newly primed surfaces are ground off. Then remove the dust from the surface (best with a moist cloth).
- Fill v-grooves that may be open with a v-groove protection (e.g. Glasurit Elasto Fill).
- Apply 1x thin coat of paint.
Apply just enough paint to achieve a good finish without the formation of tears.
Allow paint to dry (in the case of water-based paint the drying time required is at least 4 hours, for solvent-based paints allow to dry overnight):
- Apply the second coat within two days (as described above).

Tools

- High-quality acrylic paintbrushes with split bristles (result in good coating cover)

Paints

- Please only use high-quality window paints! These may be water-based paints (e.g. Sikkens Rubbol BL Satin) or solvent-based paints (e.g. Sikkens Rubbol Ventura Satin). In the case of other coating systems, always first check compatibility with the undercoat.

Hamburg, July 10th 2009