CLEANING

Glass

What is glass?

- Glass is a solid, transparent or translucent material produced by melting sand and other substances at high temperatures and then rapidly cooling the molten mixture to form a rigid structure. It is primarily composed of silica (sand), with additional ingredients such as soda ash and limestone added to lower the melting point and improve the properties of the glass.

- Glass has a non-crystalline, amorphous structure, which means that its atoms are not arranged in a regular pattern like those in crystalline solids. This unique structure gives glass its transparency, allowing light to pass through it without significant distortion. Glass can also be manufactured in various colors by adding metal oxides or other pigments to the molten mixture.

- Glass is valued for its versatility and wide range of applications. It is commonly used in windows, doors, and other building materials, as well as in the production of household items such as bottles, jars, dishes, and decorative objects. Glass is also used in technology, including the manufacturing of screens for smartphones, tablets, and televisions, as well as in laboratory equipment, fiber optics, and optical lenses.

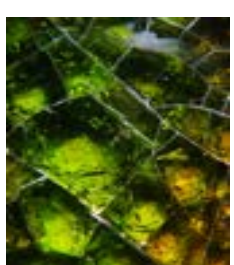
- One of the key properties of glass is its hardness and durability, although it can still be prone to cracking or shattering upon impact. However, certain types of glass, such as tempered or laminated glass, have been specially treated to improve their strength and safety characteristics.

What are **moss** and **algae**

Moss and algae are types of simple, non-flowering plants that thrive in damp, shady environments.

- **Moss:** Mosses are small, primitive plants that typically grow in dense, low mats or clumps. They lack true roots, stems, and leaves, instead absorbing water and nutrients through their leaves. Mosses reproduce via spores, and they play important ecological roles in ecosystems, such as preventing soil erosion and providing habitat for small organisms.

- **Algae:** Algae encompass a diverse group of aquatic or moist environment-dwelling organisms that can range from microscopic single-celled organisms to large, multicellular seaweeds. They can be found in various colors, including green, brown, red, or blue-green, depending on the species and environmental conditions. Algae use photosynthesis to produce energy and oxygen, and they play crucial roles in aquatic ecosystems as primary producers. However, they can also become problematic when they overgrow, leading to issues like water pollution, harmful algal blooms, and the colonization of surfaces such as rocks, tree bark, or buildings.



Cleaning moss with **Logic Clean A**

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- Typically, mosses and algae are treated using a hot water method, as the use of chemical products, previously common, is now prohibited.
- Logic Clean A is a bio-based, self-cleaning solution. After application, the surface should only be rinsed with water following the exposure time.
- Logic Clean A is not harmful and an effective and quick way to remove moss and other green stains from glass.
- No need to use a powerwasher

Logic Clean A

Is sultable for concrete, wood, stone types, Iron, porcelaIn, textIles, tents and glass.

LOGIC CHEMIE

What are the problems with cleaning **paint from glass**?

Cleaning paint from glass surfaces can present several challenges:

1. **Adhesion:** Paint often adheres tightly to glass surfaces, especially if the paint has been applied correctly and has had time to cure. This strong adhesion makes it difficult to remove using standard cleaning methods.

2. **Porous Surface:** glass is porous, meaning it has small holes and gaps that can trap paint. As a result, paint can penetrate deep into the glass, making it harder to remove.

3. **Surface Texture:** The rough texture of glass can make it difficult to remove paint completely, as paint can become trapped in crevices and irregularities in the surface.

4. **Type of Paint:** Different types of paint (e.g., latex, oil-based, epoxy) may require different cleaning methods or solvents for effective removal. Some paints may be more resistant to cleaning than others.

5. **Environmental Impact:** Certain paint removal methods, such as abrasive techniques or chemical strippers, can be harmful to the environment and may require special disposal methods for waste materials.

Logic Clean BT
Solutions

- Effortlessly removes paint with minimal manual effort.
- Non-damaging to iron surfaces.
- Logic Clean BT is bio-based.
- Applicable to concrete, iron, wood, various stone types, porcelain, glass, textiles, and tents.
- No need for hard labour, machines or sandblasting

After

Before

What are the problems with cleaning chemical stains from glass?

- Cleaning chemical stains and resin from glass can present several challenges:

1. **Penetration:** Chemical stains and resin can penetrate deeply into the porous surface of glass, making them difficult to remove completely.

2. **Adhesion:** Resin and some chemical stains can adhere tightly to the glass surface, especially if they have been allowed to dry or cure.

3. **Damage to glass:** Some cleaning agents or solvents used to remove chemical stains and resin may also damage the glass surface, leading to discoloration, etching, or erosion.

4. **Residue:** Even after cleaning, residues from chemicals or resin may remain on the glass surface, affecting its appearance and potentially attracting dirt and grime.

5. **Environmental Concerns:** Certain cleaning agents or solvents used to remove chemical stains and resin may be harmful to the environment and require proper disposal methods

Cleaning chemical stains with **Logic Clean BA**

- Efficiently removes chemical stains with minimal manual effort, eliminating the need for aggressive products like gasoline typically used for such stains.
- Also suitable for cleaning industrial machinery, it can be applied to concrete, iron, porcelain, various stone types, textiles, tents, and glass surfaces.

LOGIC CHEMIE

Why are oil stains hard to remove?

- Oil stains can be challenging to remove from glass due to several reasons:

1. **Adhesion:** Oil has a tendency to adhere strongly to surfaces, including glass. This adhesion makes it difficult to remove oil stains using traditional cleaning methods.

2. **Smooth Surface:** Glass surfaces are typically very smooth, which means that oil stains can spread out thinly and evenly. This thin layer of oil can be challenging to lift off completely.

3. **Residue:** Even after cleaning, oil residues may remain on the glass surface, leaving behind streaks or a cloudy appearance.

4. **Composition:** Some oils contain compounds that are resistant to water-based cleaners, making it harder to dissolve and remove the oil from the glass surface.

Logic Clean N

In cases of oil and grease contamination, Logic Clean N provides a solution.

Its technical composition enables deep penetration into the surface, effectively targeting even the most stubborn and aged oil stains for thorough cleaning.

After application the products keeps penetrating the surface and breaks down oil molecules in tiny pieces. This causes the oil to come up the surface.

LOGIC CHEMIE

Logic Clean **N**

- Logic Clean N is an automatic oil and grease cleaner.
- After an exposure time of 15-30 minutes, the surface can be rinsed with water.
- This bio-based solution is skin-friendly and suitable for porous surfaces.
- It can be applied to concrete, various stone types, iron, wood, porcelain, glass, textiles, and tents.

Before

After

LOGIC CHEMIE

What are the occuring problems with cleaning glass?

- Several problems can occur when cleaning glass:

1. **Streaks and Residue:** Improper cleaning techniques or the use of incorrect cleaning agents can leave streaks or residue on the glass surface, diminishing its clarity and appearance.
2. **Scratches:** Abrasive materials or rough cleaning tools can scratch the glass surface, especially if it is coated or treated with certain finishes.
3. **Water Spots:** Hard water deposits or mineral buildup can leave unsightly spots on glass surfaces after cleaning, particularly if the water used is high in minerals.
4. **Fingerprints:** Glass surfaces, especially those frequently touched, are prone to collecting fingerprints and smudges, which can be challenging to remove completely.
5. **Chemical Damage:** Some cleaning agents or solvents can damage glass surfaces or coatings, leading to etching, cloudiness, or discoloration.
6. **Safety Concerns:** Cleaning large or high windows or glass surfaces can pose safety risks, especially when using ladders or reaching from heights.

Logic Clean SF

- Logic Clean SF provides an effective remedy for stubborn dirt.
- It serves as an autonomous and potent cleaner.
- Following an exposure period ranging from 15 to 40 minutes, depending on the severity of the contamination, the surface can be easily rinsed with water.
- The cleaning product should be diluted with water, adjusting the dilution based on the level of contamination, thereby minimizing the quantity of product required.

- A solution for heavy dirt that eliminates the need for intensive manual labor.
- Achieves rapid cleaning results.
- Bio-based formulation that ensures no surface damage, preserving quality.
- Suitable for application on concrete, various stone types, wood, and porcelain surfaces.

After

Before

What are the problems with cleaning mold of glass?

- Mold growth on glass surfaces can lead to several problems:

1. **Aesthetic Issues:** Mold growth on glass can cause unsightly stains, discoloration, and black spots, diminishing the appearance of surfaces, particularly in indoor environments or on visible areas of buildings.

2. **Health Concerns:** Certain types of mold, such as black mold (Stachybotrys chartarum), can release spores and mycotoxins into the air, which can pose health risks to occupants, especially those with respiratory issues or allergies. Prolonged exposure to mold can lead to respiratory problems, allergic reactions, and other health issues.

3. **Surface Degradation:** Mold growth can contribute to the degradation of glass surfaces over time. The presence of mold can increase moisture levels in glass, leading to efflorescence, spalling, and cracking as a result of freeze-thaw cycles or moisture-induced expansion and contraction.

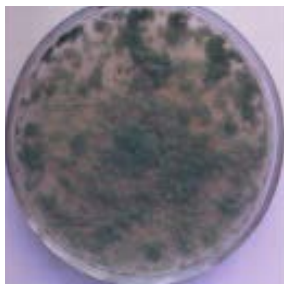
4. **Foul Odors:** Mold growth often produces musty or unpleasant odors, which can be particularly noticeable in enclosed spaces or poorly ventilated areas.

5. **Recurring Growth:** Even if mold is removed from glass surfaces, it can quickly return if the underlying conditions conducive to mold growth, such as high humidity or water infiltration, are not addressed.

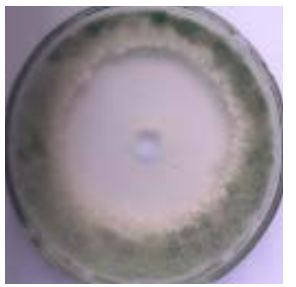
Cleaning Mold with **MoldEx**

- MoldEx is an antifungal spray formulated without toxins like chlorine or hypochlorite, ensuring fungi are controlled without bleaching.
- It can be easily applied to sensitive surfaces such as leather, textile, suede, and more.
- Additionally, MoldEx can be added to a steam engine for treating carpets and curtains afterward. This bio-based solution is suitable for use on various surfaces including stone types, concrete, textile, porcelain, and tents.

MoldEx **Solutions**



Before



After