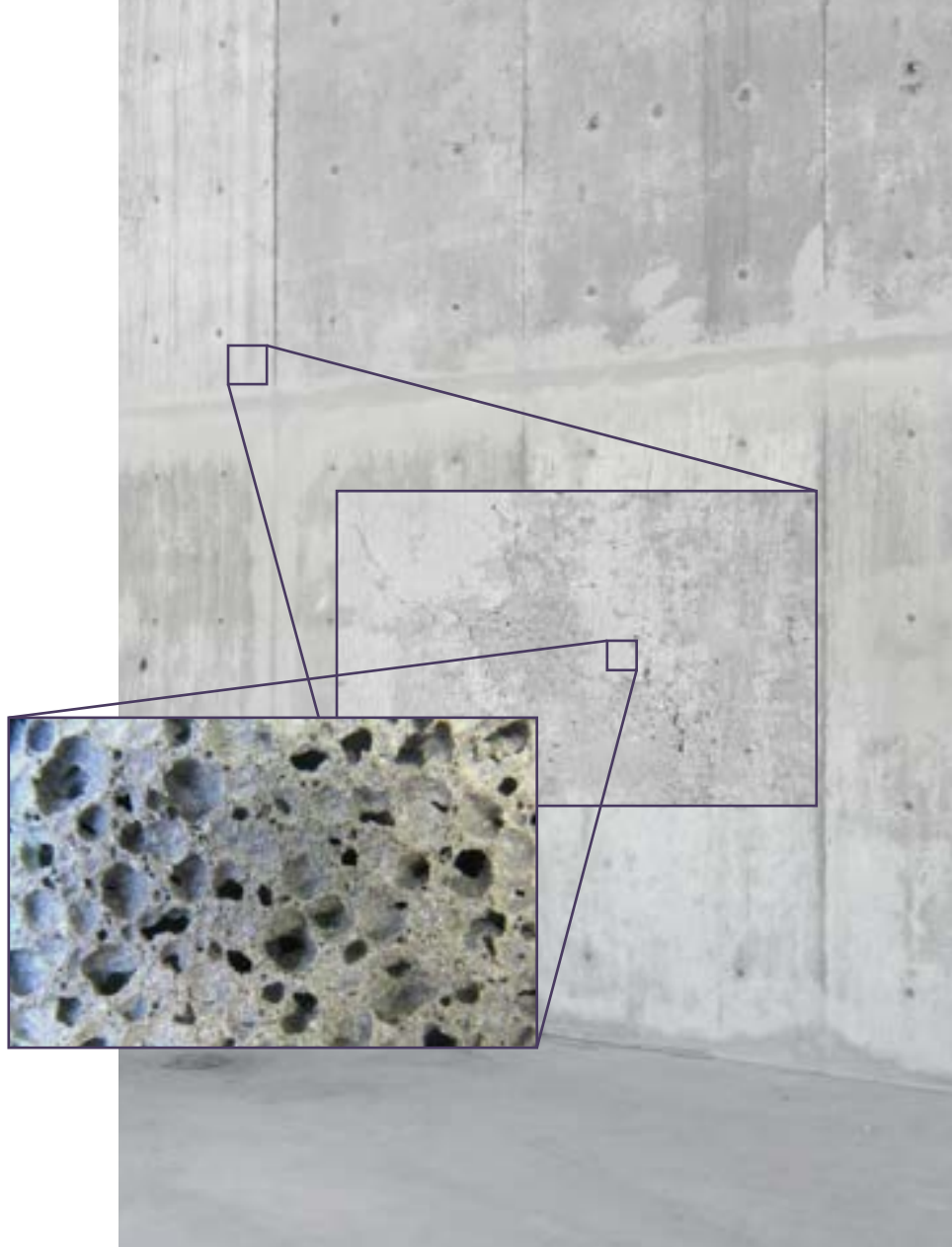
CLEANING

Concrete

What is concrete?

- Cement: Binds ingredients together; commonly Portland cement from limestone, clay.
- Aggregates: Provide bulk, strength; coarse (gravel, crushed stone), fine (sand).
- Water: Essential for cement hydration; affects workability, strength, durability.
- Admixtures: Modify properties; e.g., plasticizers for workability, accelerators, retarders, air-entraining agents.
- Supplementary Cementitious Materials (SCMs): Enhance performance, sustainability; e.g., fly ash, slag cement, silica fume.
- Proportions vary based on desired properties, environmental factors.
- Concrete mix designs tailored for specific applications: foundations, bridges, roads, decorative elements.

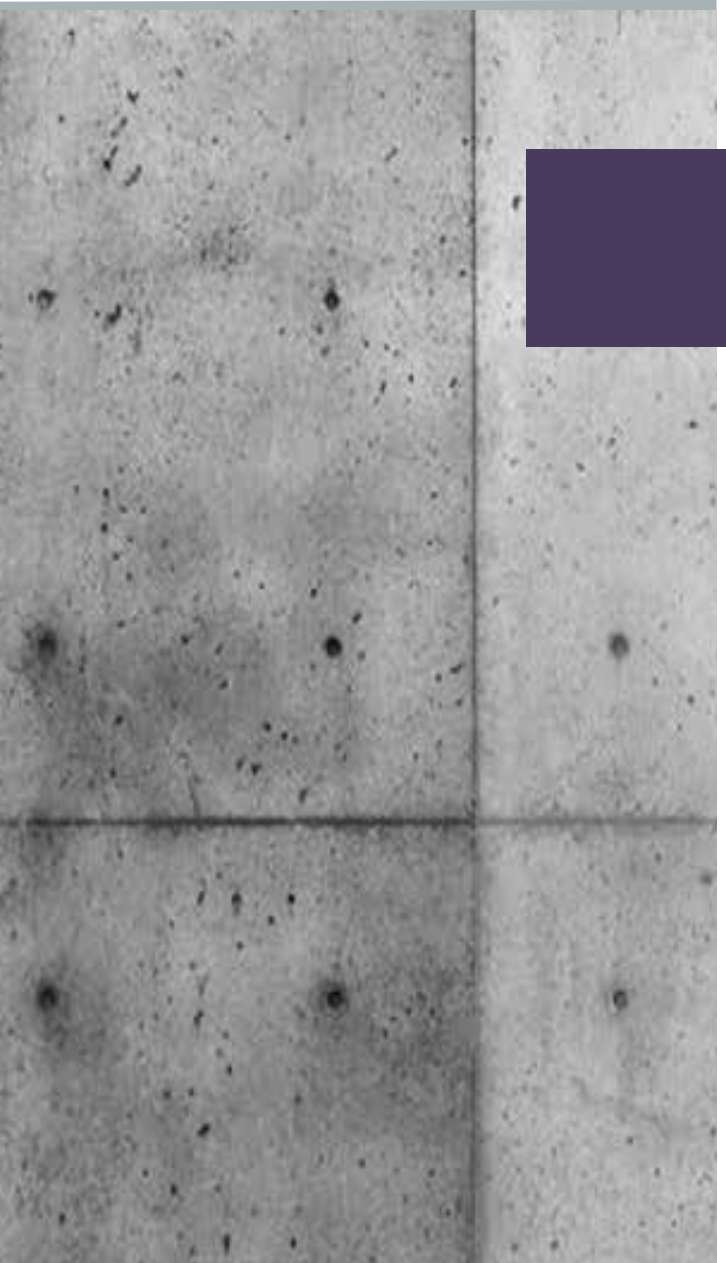


What are **moss** and **algae**

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 concrete.
- No need to use a powerwasher

Logic Clean A

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

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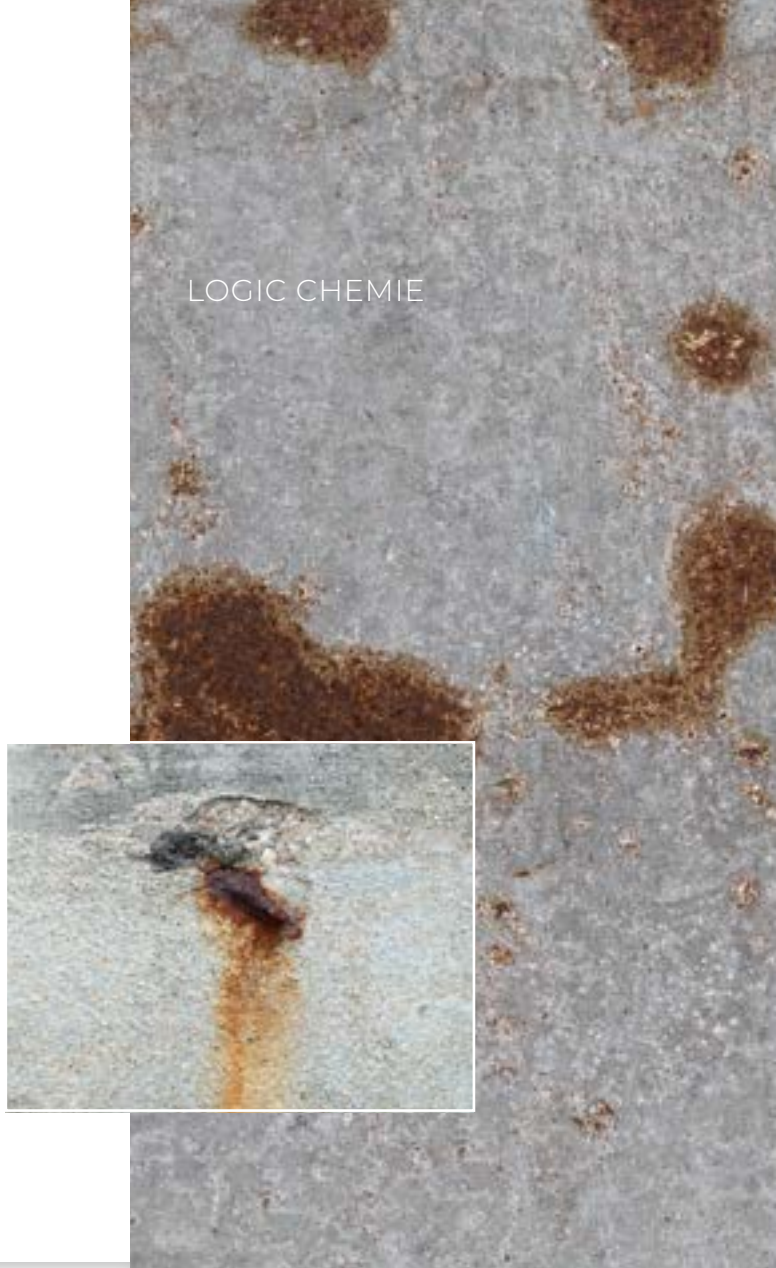
What are the problems with **rust in concrete?**

Rust and corrosion in concrete can pose several problems:

1. **Structural Integrity:** Rusting reinforcement bars (rebar) embedded within concrete can expand, causing cracking and spalling of the concrete. This compromises the structural integrity of the concrete, potentially leading to structural failure.
2. **Aesthetic Damage:** Rust stains on the surface of concrete are unsightly and can detract from the appearance of structures and surfaces, particularly in architectural applications.
3. **Surface Deterioration:** Corrosion of metallic elements within concrete can cause surface deterioration, including scaling and flaking, which can expose the underlying concrete to further damage.
4. **Safety Concerns:** In structural applications, corrosion-induced degradation can compromise the safety of the concrete structure, posing risks to occupants and users.
5. **Long-Term Maintenance Costs:** Addressing rust and corrosion issues in concrete typically requires costly repairs and maintenance. If left untreated, the problem may escalate, leading to more extensive damage and higher repair costs over time.



Cleaning of rust with **Logic Clean B**

Logic Clean B is a self-cleaning solution designed to remove rust and oxidation layers.

After applying Logic Clean B (cream), it is essential to cover the surface with a cloth.

Following a 24-hour exposure time, the surface should be rinsed with water. This environmentally friendly and biodegradable product offers effective rust removal.

There is no hard labour or machines necessary

Logic Clean B **Solutions**

- This self-cleaning and intensive solution is bio-based, making it environmentally friendly.
- Due to its cream-like consistency, it can effectively target even the smallest spots of rust and oxidation.
- Suitable for use on concrete, iron, wood, various stone types, textiles, and tents, it offers versatile application for multiple surfaces.

After

Before

What are the problems with cleaning paint from concrete?

- Cleaning paint from concrete surfaces can present several challenges:

1. **Adhesion:** Paint often adheres tightly to concrete 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:** Concrete is porous, meaning it has small holes and gaps that can trap paint. As a result, paint can penetrate deep into the concrete, making it harder to remove.

3. **Surface Texture:** The rough texture of concrete 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.

Cleaning paint and graffiti with**Logic Clean BT**

- Logic Clean BT is an automatic solution designed to eliminate old paint and varnish layers, graffiti, glue residues, tar, and soluble resin.
- This neutral cream can be effortlessly applied to surfaces using a brush or sprayer.
- After application, the product should be left for 30-45 minutes before rinsing the surface with water.

After

Before

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

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What are the problems with cleaning chemical stains from concrete?

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

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

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

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

4. **Residue:** Even after cleaning, residues from chemicals or resin may remain on the concrete 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.

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Why are oil stains hard to remove?

- Oil stains are difficult to remove from concrete due to several reasons:

1. **Absorbency:** Concrete is porous, meaning it has tiny holes and gaps that can absorb liquids like oil. Once the oil penetrates the concrete, it can spread and become deeply embedded, making it challenging to remove.

2. **Chemical composition:** Many oils, especially petroleum-based ones, contain compounds that adhere strongly to surfaces. These compounds can form bonds with the concrete, making it difficult for conventional cleaners to break them down.

3. **Surface texture:** The rough texture of concrete provides many hiding spots for oil to settle into, making it harder to reach and clean thoroughly.

4. **Time:** If not treated promptly, oil stains can seep deeper into the concrete over time, making them even more stubborn to remove.

5. **Age:** Older oil stains may have had more time to penetrate and bond with the concrete, making them more resistant to removal.

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.

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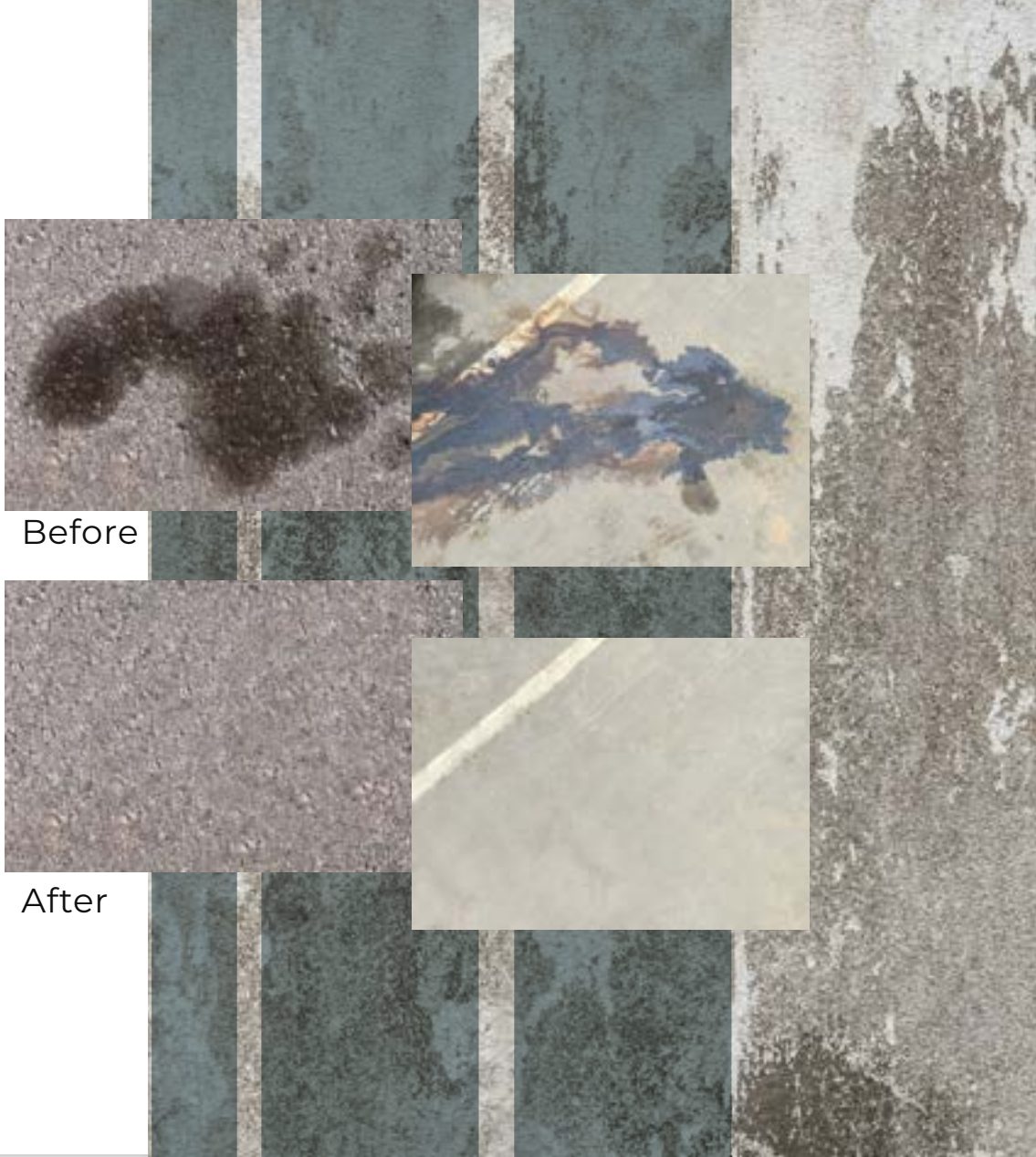
Logic Clean **N**

- 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.



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What are the occuring problems with cleaning concrete?

1. **Embedded stains:** Stubborn stains, such as oil, grease, or rust, can penetrate deep into the concrete pores, making them difficult to remove with standard cleaning methods.
2. **Efflorescence:** This is the migration of salts to the surface of the concrete, leaving behind a white, powdery residue. Efflorescence can reoccur even after cleaning if the underlying issue, such as moisture infiltration, is not addressed.
3. **Algae and mold:** Concrete surfaces in damp or shaded areas may develop algae, mold, or mildew growth, which can be challenging to eradicate completely, especially if they've penetrated into the porous surface.
4. **Uneven cleaning:** Improper cleaning techniques or equipment can result in uneven cleaning, leaving behind streaks, patches, or discolored areas on the concrete surface.
5. **Surface damage:** Aggressive cleaning methods or harsh chemicals may damage the concrete surface, leading to erosion, pitting, or etching.
6. **Residue buildup:** If cleaning agents are not rinsed off properly, they can leave behind residue, which may attract more dirt and grime, leading to rapid re-soiling.

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 concrete?

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

1. **Aesthetic Issues:** Mold growth on concrete 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 concrete surfaces over time. The presence of mold can increase moisture levels in concrete, leading to efflorescence, spalling, and cracking as a result of freeze-thaw cycles or moisture-induced expansion and contraction.

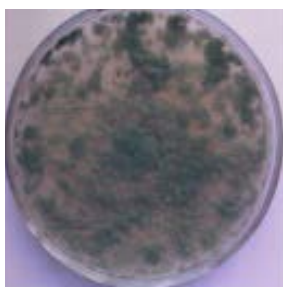
4. **Foul Odors:** Mold growth often produces musty or unpleasant odors, which can be particularly noticeable in enclosed spaces or poorly ventilated areas.

5. **Recurring Growth:** Even if mold is removed from concrete 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