

How to use

Renotec

Renovating and protecting agent for metal-coated glass



Tools you need:

- Soft Cloth-Cotton
- Polishing Machine
- Polishing disk of lamb wool or dense foam pad



Application method

- Apply Renotec evenly on the glass surface using a soft cloth.



- Or use an appropriate slow turning polishing machine, approx. 275 rev/min (rec. Flex VR-1501R).



- Rub until all pollution is gone. Rub out any cloud or rinse with fresh water.
- If necessary, repeat until all pollution is gone.

ALWAYS TEST each type of surface and each type of stain for suitability, and results.

How to use

Calc-Off

How to eliminate limestone-sediment-concrete-cement-acid stains
on glass



Tools you need:

- Soft Cloth
- Polishing Machine
- Polishing disk of dense foam pad

Application method

- Apply Calc-Off evenly on the whole glass using a soft cloth.
- Or use an appropriate slow turning polishing machine, approx. 275 rev/min (rec. Flex VR-1501R)
- Rub until all pollution is gone. Remove any residues using a soft cloth and rinse with fresh water.
- If necessary, repeat the restoration process until all contaminate has been removed.



Renotec may be applied to provide a protective layer.

ALWAYS TEST each type of surface and each type of stain for suitability, and results.

Test Area

Test a minimum 4 ft. by 4 ft. area on each type of substrate. Use manufacturer's application instructions. Let the test panel dry. Keep test panels available for comparison throughout the project.

How to use

Alu-Clean

How to clean and renovate coated aluminum



Tools you need:

- Soft Cloth

Application method



- Apply the Alu-Clean with a soft cloth. Spread the Alu-Clean evenly over the surface.



- Polish the surface until the pollution is removed. Wipe off any possible residues and rinse with pure water.

Don't use a Scotch-brite sponge on lacquered aluminum, scratches might occur.

ALWAYS TEST each type of surface and each type of stain for suitability, and results.

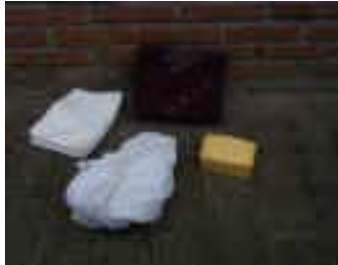
Test Area

Test a minimum 4 ft. by 4 ft. area on each type of substrate. Use manufacturer's application instructions. Let the test panel dry. Keep test panels available for comparison throughout the project.

How to use

Renu-Alu and Pro-Alu

How to clean, renovate and protect anodized aluminum



Tools you need:

- Scotch-Brite 3M sponge
- Soft cloth
- Regular sponge

Application method

- Clean the aluminum with Renu-Alu (renovating agent) using a Scotch-Brite 3M sponge.



- Wash the surface with clean water and a regular sponge.



- Dry the surface with a soft cloth.



- Apply PRO-ALU to the renovated anodized aluminum, with a soft cloth, in a single stroke.



ALWAYS TEST each type of surface and each type of stain for suitability, and results.

TECHNICAL GUIDELINES

APPLICATION

It is very important that the products are applied with a circular or straight movement and all over the surface that shall be treated. The motion shall continue until the product dries out and changes into powder form. If the products are applied to a surface and left for a period of time no renovating results will be obtained.

Any possible residues after treatment can easily be cleaned off with pure water. Willems recommends washing and squeegeeing the surface after treatment.

The exception from the above is PRO-ALU, which is applied in a single stroke in the same direction and should not be touched until properly dried (approx. 2 hours).

Recommended working temperature is above 50 degrees. The products can be applied above 32 degrees. Warmer temperatures will give a faster result. Below 32 degrees the products will freeze.

MAINTENANCE AFTER RESTORING

Willems does not guarantee the protecting function after use of our products if the surface in the future is cleaned with an abrasive, alkali or acid cleaning agent. Only pure water or a mild, non-abrasive chemically neutral cleaning agent should be used after treatment with Willems products.

The life span of the protecting function is extended if the surface is regularly cleaned after application of Willems products. The treated surface will have a very low friction coefficient, which makes future maintenance easier and faster. The pollution will not stick to the treated surface so easily which means that the building will be less dirty and the need of cleaning will be less frequent.

Procedures for machine polishing

Recommendations machine:

The products should be used with a machine at maximum 275 rev/min. If a faster machine is used the products will dry too fast and give a less result. Equally, a faster machine might burn the glass.

Flex L1501VR polishing machine with variable speed is the preferred tool for this restoration process.

The Flex machines have to be equipped with Velcro fitting backer pad.

Recommendations pads:

According to our experience the dense foam pad gives the best results. The pores in the pad will prevent dirt and grime built up between the pad and the glass surface, since the dirt and grime will penetrate into the pad instead. The pad can be rinsed in water and dried after every day use.

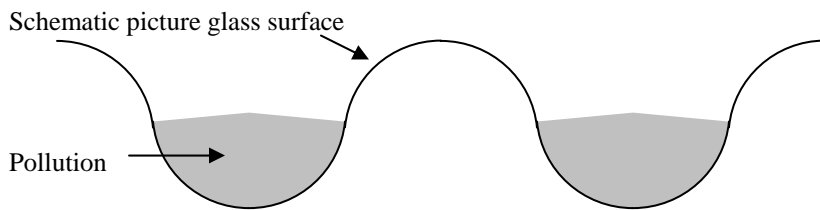
Procedures how to use

There will be an initial higher use of products since the pad is dry. Once the pad is soaked with products the consumption of products will go down. This is important while calculating product consumption by treating a smaller area.

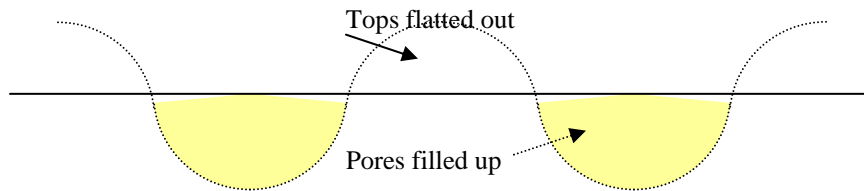
The application procedure is the same as polishing a car.

1. Apply product on the pad, or spray it on to the glass using a spray bottle.
2. Use the pad and machine to spread the product evenly over the surface to treat. It is recommended to work in areas of approx 2' X 2'. Do not treat too big area at once.
3. Once the surface is covered with a white film with product the restoration process starts. Work the product until the restoration fluid dries and becomes a powder. This process should not be rushed. Work slowly over the area.
4. It is easier and faster to rinse the glass with pure water than to polish off all residues after the restoration process is complete.
5. On hard to solve problems it might be necessary to re-treat spots that did not come off the first time.

TECHNICAL DESCRIPTION RENOTEC



1. A glass surface is not flat. The pores in the surface gives pollution a chance to grip on the surface of the glass and pollution stuck in these pores are normally very difficult to remove.



2. During the restoration with RENOTEC, the structure of the metal coating or the glass will be changed. The “tops” of the glass will be flattened out and the pores will be filled up. During this process all existing pollution will be removed from the surface.

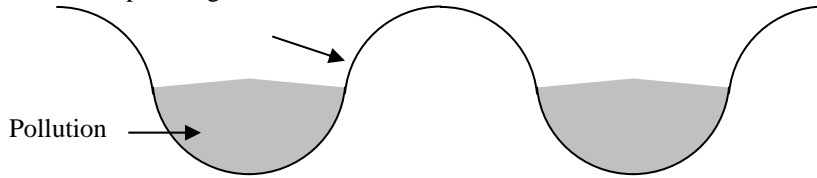
Protective coating

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Flattened out glass surface

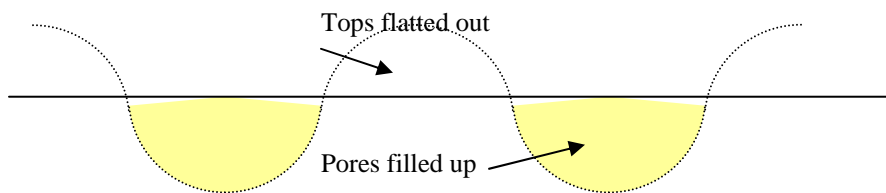
3. The result is a flat surface, free from pollution. The surface now has a very low friction, a fact that makes it very difficult for pollution to stick to the surface. In addition, a silicone based protecting layer is added on top of the surface, making future cleaning easier, cheaper and faster and the need for future cleaning will be less frequent.

TECHNICAL DESCRIPTION CALC-OFF **Removes mineral deposits, hard stains on normal glass**

Schematic picture glass surface



1. A glass surface is not flat. The pores in the surface gives pollution a chance to grip on the surface of the glass and pollution stuck in these pores are normally very difficult to remove.



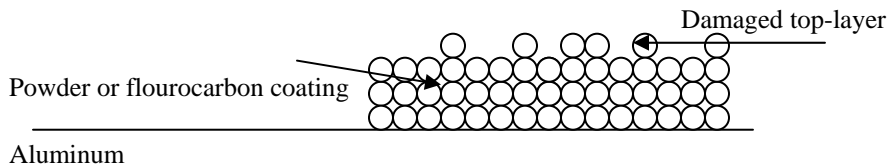
2. During the restoration with CALC-OFF, the structure of the glass surface will be changed in the way that the glass surface will be flattened out. The “tops” of the glass will be flattened out and pores will be filled up. This is possible due to CALC-OFF’s very special chemically structure. During this process all existing pollution will be removed from the glass.

3. The result is a flat glass surface, free from pollution. The surface now has a very low friction, a fact that makes it very difficult for pollution to stick to the surface. In addition, a silicone based protecting layer is added on top of the surface, making future cleaning easier, cheaper and faster and the need for future cleaning will be less frequent.

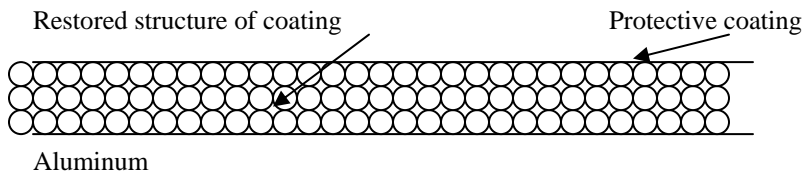
TECHNICAL DESCRIPTION ALU-CLEAN

ALU-CLEAN renovates and protects powder coated and painted surfaces in a one-time application procedure. The product is developed to renovate the paint layer and restores the original color of the panel.

Schematic picture lacquered aluminum surface



1. In the schematic picture above the structure of the powder coating or is schematically described. During aging, the top layer of the coating will get less compact and pores will occur in the surface. This destroyed, less compact top surface makes the color of the paint fade, shadows occur and the shine and luster disappears.



2. During the restoration with ALU-CLEAN, the destroyed, less hard top layer of the lacquer will be removed. New and undamaged molecules of the lacquer will be brought up to the surface and restore the original color, shine and luster of the aluminum panel.

At the same time, a silicone based protection layer will fill up all possible pores and makes the surface 25% stronger. The protection layer has a very low friction. Therefore dirt will not stick to the surface so easy, future cleaning will be easier, cheaper and faster. Normally the surface is cleaned with pure water after restoration and the need for cleaning will be less frequent.

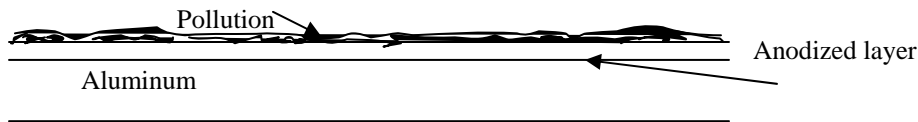
NOTE: The under-laying, undamaged structure of the lacquer is too hard to be removed by ALU-CLEAN. During the renovation process it is very thin, only the damaged top layer that will be removed.

TECHNICAL DESCRIPTION RENU-ALU AND PRO-ALU

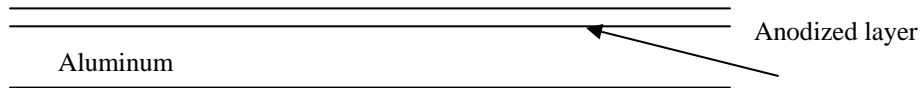
Restoring agent for anodized aluminum

RENU-ALU and PRO-ALU renovates and protects anodized aluminum in a two-step application procedure. The products are developed to renovate the anodized layer without destroying or removing it.

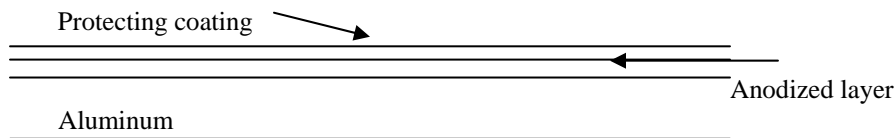
Schematic picture anodized aluminum surface



1. The schematic picture above describes the structure of anodized aluminum. The anodized layer contains of pores where pollution easily sticks and is difficult to remove. The result is a bad looking, discolored surface.



2. During the renovation with RENU-ALU, the anodized surface will be restored to original looks without damaging the anodized layer. All pollution on the surface will be removed.



3. After restoration, PRO-ALU is applied on the surface. PRO-ALU seals up all pores in the surface, making the surface low friction and glossy.