

Cleaning recommendations



Cleaning recommendations

Content	Page
Seat cover fabric, seat covers and laminated seat covers	3
Curtains	6
Carpets	13
Genuine leather	17
TEC-Leather	19
Artificial leather	21
Wall coverings	22

Cleaning recommendation

This documentation is based on our present knowledge / experience and is intended to provide general information on our products and their uses. It should therefore not be interpreted as guaranteeing specific properties of the products or their suitability for a particular application. The documentation is a recommendation and is not legally binding.

Please do not hesitate to contact sales@lantal.ch for further information.

Seat cover fabric, seat covers and laminated seat covers

General consideration

Experience shows that laminated seat covers cleaned according to these instructions can be subjected to 10 cleaning cycles without any problems.

If the cleaning process deviates from these recommendations, the seat covers may shrink or delaminate or the lettering on the tags may bleach. Lantal cannot assume any liability if the seat covers are cleaned with other methods.

4.1. Polyester (standard – chenille) / Wool blend (extra – standard – light) / Climatex

Dry cleaning equipment

Machine: Process-controlled two-bath cleaning system.

The machine must be designed to prevent the escape of more than 2 g/m³ of perchloroethylene to the ambient air when the drum is opened.

Cleaning agents

- Perchloroethylene
- Cleaning intensifiers (anionic)

Caution: Do not use cleaning intensifiers that contain solvents!

Preparations

1. Color sorting of textiles
 - Cover Velcro tapes to protect fabric surfaces
 - Remove all loose parts such as detachable Velcro tapes
 - Do not mix textiles with other parts to be cleaned
2. Air drying of wet or moist textiles (pre-drying)
3. For pretreatment of stains, use only commercial products that are compatible with the cleaning intensifier.

Caution: It is important that moist parts be air-dried prior to cleaning!

Cleaning process

1. Loading the machine
 - The machine is loaded to max. 75% of its rated capacity
2. First bath
 - 3 minutes cleaning in detergent solution with cleaning intensifier added
 - High detergent solution concentration 1:3

- Cleaning in pump cycle without filter
 - 1 minute spin cycle
 - Detergent solution to distillation
3. Second bath
- 8 minutes cleaning in detergent solution outside the cleaning tank with cleaning intensifier added
 - Low detergent solution concentration 1:5
 - 1 to 2 minutes cleaning in the pump cycle
 - 6 to 7 minutes cleaning in the filter cycle
 - 3 minutes spin cycle; pump detergent solution into cleaning tank
4. Drying
- Minimum 30 minutes at max. 60°C
5. Unloading
- While unloading, the temperature must be lower than 35°C
 - Caution: Do not pack warm seat covers in boxes

Optional re-treatment

About 70 to 80 % of the covers should become clean during pre-treatment and dry cleaning - depending on the cleaning system and kind of stains. The spots still visible can be cleaned with a steam gun followed by another dry cleaning cycle. Before it is loaded into the dry cleaning machine, the fabric must be completely dry to avoid shrinkage.

Fabrics cleaned in accordance with our recommendations can be dry cleaned 10 times without losing the flame-resistant properties.

Polyester (standard – chenille)

The most suitable appliances are the small "all-in-one" machines with a capacity up to 60 kg. The machine should only be loaded with 1/3 of its capacity. All hook (male) Velcro tapes must be covered by their counterpart – loop tape - to avoid any damage to the fabric during cleaning. Please follow the instructions of the machine supplier.

Fabrics cleaned in accordance with our recommendations can be washed up to 20 times without losing the flame-resistant properties.

	Liquor Ratio	Water Temperature	Additives	Process Time
First Wash	1:7 to 1:8	Up to 30° C/86° F	20–35 g/kg / 0.32-0.56 oz/lb. non-ionic detergent	10–15 min.
Interim Rinse If the seat covers are very dirty we recommend an intermediate rinse	1:7 to 1:8	Up to 30° C/86° F	10 ml/kg / 0.16 oz.fl./lb. chlorine bleach (15% solution)	5 – 10 min.
Main Wash	1:7 to 1:8	Normal Wash 30°- 40° C / 86°-104° F, use soft water	Normal Wash 10 – 15 g/kg / 0.16-0.24 oz/lb. non-ionic detergent	Approx. 10 min.
Rinse	1:8 in hard water	Cool slowly to about 20° C / 68° F in order to avoid temperature shock and creasing	It is not recommended to use fabric conditioners as the flame retardant properties may be adversely affected	
Spinning	Light spin leaving residual moisture content of approx. 30-50%			
Drying	Hang seat covers to dry. Tumble drying is also possible. Load at a ratio of no more than 1/3 of usual load . Dry at maximum of 70° C/158° F waste air temperature and retain in an air-ventilated rotary drum until completely cool.			

Curtain fabrics

Wool / Wool blend / Polyester (pleated and non-pleated curtains)

1. Precaution

All hook (male) Velcro tapes must be covered with their counterpart - loop tape - to avoid any damage to the fabric during the dry cleaning process. Remove magnet before cleaning. Color sort the textiles and do not mix textiles with other parts to be cleaned.

Furthermore, we recommend to fix pleated curtains made of wool in a frame to avoid the dissolving of the pleats.

Caution: It is important that moist parts be air-dried prior to cleaning!

2. Pre-treatment

We recommend to spray the spots with a detergent activator and left for about 20 minutes before loaded into the dry cleaning machine. Only use commercial products that are compatible with the cleaning intensifier. Heavily stained areas should be slightly brushed with a soft brush.

The curtain has to be packed in a net bag before the cleaning process.

3. Dry cleaning

Dry cleaning equipment

Machine: Process-controlled two-bath cleaning system.

The machine must be designed to prevent the escape of more than 2 g/m³ of perchloroethylene to the ambient air when the drum is opened.

Cleaning agents

- Perchloroethylene
- Cleaning intensifiers (anionic)

Caution: Do not use cleaning intensifiers that contain solvents!

Cleaning process

1. Loading the machine
 - The machine is loaded to max. 75% of its rated capacity.
2. First bath
 - 3 minutes cleaning in detergent solution with cleaning intensifier added
 - High detergent solution concentration 1:3
 - Cleaning in pump cycle without filter
 - 1 minute spin cycle
 - Detergent solution to distillation

3. Second bath

- 8 minutes cleaning in detergent solution outside the cleaning tank with cleaning intensifier added
- Low detergent solution concentration 1:5
- 1 to 2 minutes cleaning in the pump cycle
- 6 to 7 minutes cleaning in the filter cycle
- 3 minutes spin cycle; pump detergent solution into cleaning tank

4. Drying

- Minimum 30 minutes at max. 60°C

5. Unloading

- While unloading, the temperature must be lower than 35°C.
- Caution: Do not pack warm curtains in boxes.

4. Optional re-treatment

Before re-treatment will be started, please make sure the fabric is completely dry in order to avoid shrinkage. About 70 to 80 % of the curtains should become clean during pre-treatment and dry cleaning - depending on the cleaning system and kind of stains. The spots still visible can be cleaned with a steam gun followed by another dry-cleaning cycle.

Fabrics cleaned in accordance with our recommendations can be dry cleaned up to 20 times without losing the flame-resistant properties.

Important: For drying, hang the folded curtain over the rack.

Polyester (pleated and non-pleated curtains)

1. Sorting

Pleated curtains have been processed to receive a permanent set to the pleat edges and fabric weave. To minimize stretching and distortion, it is important that pleated curtains are placed in net bags for cleaning. All hook (male) Velcro tapes must be covered with their counterpart - loop tape - to avoid any damage to the fabric during the dry cleaning process. Remove magnet before cleaning.

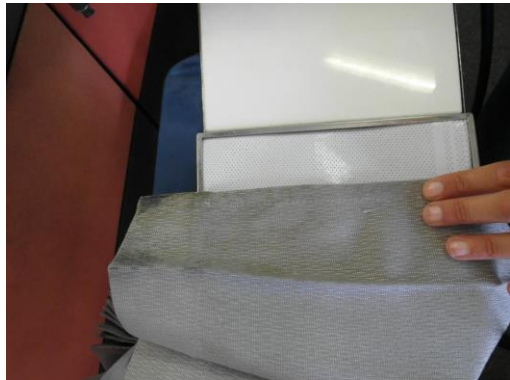
2. Cleaning

The most suitable appliances are the small "all-in-one" machines with a capacity up to 60 kg. The machine should only be loaded with 1/3 of its capacity. All hook (male) Velcro tapes must be covered by their counterpart – loop tape - to avoid any damage to the fabric during cleaning. Please follow the instructions of the machine supplier.

Fabrics cleaned in accordance with our recommendations can be washed up to 20 times without losing the flame-resistant properties.

	Liquor Ratio	Water Temperature	Additives	Process Time
First Wash	1:7 to 1:8	Up to 30° C/86° F	20–35 g/kg / 0.32-0.56 oz/lb. non-ionic detergent	10–15 min.
Interim Rinse If the curtains are very dirty we recommend an intermediate rinse	1:7 to 1:8	Up to 30° C/86° F	10 ml/kg / 0.16 oz.fl./lb. chlorine bleach (15% solution)	5 – 10 min.
Main Wash	1:7 to 1:8	Normal Wash 30°- 40° C / 86°-104° F, use soft water	Normal Wash 10 – 15 g/kg / 0.16-0.24 oz/lb. non-ionic detergent	Approx. 10 min.
Rinse	1:8 in hard water	Cool slowly to about 20° C / 68° F in order to avoid temperature shock and creasing	It is not recommended to use fabric conditioners as the flame retardant properties may be adversely affected	
Spinning	Light spin leaving residual moisture content of approx. 30-50%			
Drying	Hang curtain to dry straight after machine washing. Tumble drying is also possible. Load at a ratio of no more than 1/3 of usual load . Dry at maximum of 70° C/158° F waste air temperature and retain in an air-ventilated rotary drum until completely cool			

If the curtain is extreme dirty with oil and coffee stains, Lantal recommends the following procedure.

<p>Curtain before cleaning:</p> <p>You can see following:</p> <p>Black stain → appears an oil stain</p> <p>Brown stain → coffee stain and other beverage stains.</p> <p>Remarks from the cleaning expert:</p> <p>The coffee stain are very old, this makes it more difficult to remove it.</p> <p>→ Proposal: shorter cleaning cycles.</p>	
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Detachieren with ox-gall soap

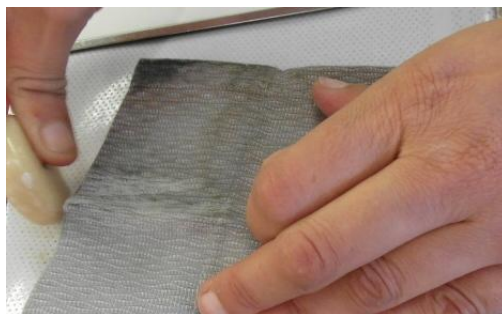
1. Rub the fabric with ox-gall soap
2. Detachieren

Result:

The black stain will be distinctively reduced.
The coffee stain will also be reduced, but lower than the black oil stain.

The advantage is, that the fabric will be slightly wet, it will help to remove the "old" coffee stain inside the dry cleaning process.

Detachieren means hot water steam (about 110°C) without any detergent, and then provide air flow to dry the fabric.






The curtain has to be packed in a net bag before the dry cleaning process to protect the curtain creases.



Size of the net bag: 80 x 90 cm
One side has to have a rope fastener



<p>In this special case, the curtain was placed together with filling material in order to achieve a movement of the cleaning good inside the cleaning machine.</p> <p>Temperature about 38°C</p> <p>About 80% of the spots were disappeared after dry cleaning.</p>	 
<p>Curtain after dry cleaning with PER: About 80% of the spots were removed.</p> <p>Problem with following spots:</p> <ul style="list-style-type: none"> - Old coffee spots - Black oil spots 	
<p>As a next step, the curtain has to be put in a normal cleaning machine in order to clean the curtain.</p> <p>Temperature about 30°C Detergent: standard fabric conditioner</p> <p>Please note: This is only possible with polyester curtains.</p>	

The curtain edge after the cleaning process:
The spots are very limited.



Optional re-treatment of the last stains by using
detergent from "BÜFA" and detachieren with ox-
gall soap.

It will take about two minutes to remove the last
debris from the spots.

For your information:
Detergent from Company BÜFA

Available:
<http://www.chemieag.ch/de/produkte/detachiermittel.asp>

Detail information:
<http://www.buefa.de/wps/portal/rs/rs/start>

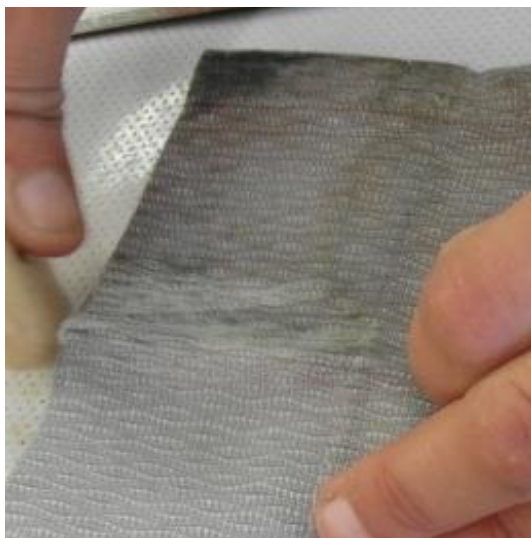
Dry-cleaner company were we do this trial:
<http://www.nevel.ch>



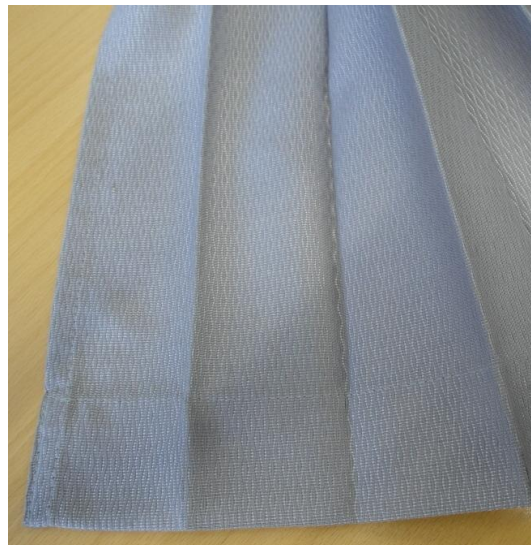
Important:
For drying, hang the folded curtain over the rack



Before cleaning



After cleaning



Carpets

Daily cleaning inside the aircraft

The carpet should be vacuumed as often as possible (after every flight if time allows) because this will remove the bulk of possible dirt and dust brought into the cabin by shoes.

- Vacuum cleaning with a high-performance machine.
- Make sure that the dust bag in the machine is empty before starting the cleaning process to fully exploit the capacity of the vacuum cleaner.

Soiling during flights

Dirt and stains may occur at any time. Immediate attention to spills generally prevents the development of stubborn stains.

In case of liquid spills on the carpet (coffee, tea, soft drinks, wine, etc.):

- Take a white towel or absorbent paper tissue and dab the affected area to soak up most of the liquid immediately. Dab fresh stains as soon as possible.
- Do not rub, dabbing is the best method!

In the event that the carpet is soiled by meal ingredients, etc.:

- Take a spoon or other suitable utensil and remove residues immediately.
- After that first action, use a tissue or paper towel and dab the stained area. Do not rub!
- If possible, cover or mark the stained area to prevent passengers from walking over it.

Stain removal after flights

Basically, fresh stains and liquids should be attended to immediately by using tissues or white towels – just dab the spots.

To thoroughly and successfully remove stains after a flight, cleaning with a special product is indispensable. Do not carry any cleaning sprays aboard the aircraft. Lantal recommends the following procedure:

- Always follow the instructions on the packaging
- Test for color fastness and material durability in an inconspicuous spot

Stain	Treatment
Coffee Tea Soft drinks Wine	Moisten a cloth with cold water. Place this on the stain to absorb the fluid. Repeat the action as soon as the cloth is saturated and until all fluid has been absorbed. Let the carpet dry and spray the stain with Aviation Carpet Cleaner One. Brush away with the Spotting tool.
Blood Vomit Urine	Same as coffee, tea, soft drinks and wine.

Food leftovers and fruits	Remove all loose, solid elements with a teaspoon. Spray the stain with Aviation Carpet Cleaner One and brush with the Spotting tool.
Chewing gum	Spray the stain with a chewing gum freezer (Wetrok Karpfrost cold spray or gumex chewing gum remover). Carefully scrape the chewing gum off with a teaspoon.

Product recommendation

Lantal recommends the Aviation Carpet Cleaner One for stain removal.
This product is approved by Boeing.


Removal of chewing gum

Chewing gum can be removed properly with a cold spray.

- Spray product on chewing gum to freeze it.
- Fragmentize chewing gum with spatula and scratch off.
- Immediately remove frozen fragments (vacuum clean).
- Product recommendation: Lantal recommends the Wetrok Karpfrost cold spray.



Another good working possibility to remove chewing gum is to use a liquid cleaning agent.

- Apply the product to a cloth and blot onto the chewing gum
- Allow the product to act, then rub the chewing gum off.
- Use a spatula (plastic) to remove particularly stubborn chewing gum.
- Carefully dispose of the removed chewing gum.
- Product recommendation: Lantal recommends the gumex chewing gum remover.



Cleaning inside the aircraft

Encapsulation cleaning method

We recommend deep cleaning the pile with an encapsulation cleaning method.

- 1st step: Vacuum cleaning with a rotating brush vacuum cleaner.
- 2nd step: Pretreat and remove stains as described above.
- 3rd step: Pre-spray the carpet with Aviation Carpet Cleaner Two.
- 4th step: Let it work in the carpet a few minutes.
- 5th step: Use the brush machine with the white brushes and use it cross link on the carpet.
- 6th step: If necessary, repeat steps 2 to 4.

After one hour the carpet is walkable. The carpet must be lubricated with the encapsulation formula when using this method.

The dosage of the detergents depends on the degree of soiling.

- normal: 1 bottle of 350 ml per 8 liters cold water
- heavy soil: 1 bottle of 350 ml per 4 liters cold water

Product recommendation

Lantal recommends the use of Aviation Carpet Cleaner Two as detergent for the encapsulation cleaning method for more intense carpet cleaning on a periodic base inside the aircraft. The system is almost dry and the carpet is directly walkable after the treatment. Compared to traditional systems this procedure saves a lot of water.

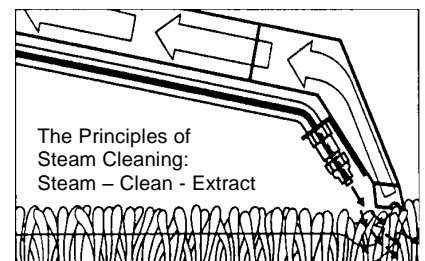
This product is approved by Boeing.



Injected steam cleaning

Steam cleaning means cleaning with limited humidity (90% less than water spray extraction). The steam is injected into the pile with high pressure and the humidity is extracted immediately thereafter by vacuum.

After two hours the carpet is walkable.



Product recommendation

For cleaning carpets inside the aircraft, Lantal recommends the Wetrok Calorvac DS7 steam vacuum cleaner. It steam cleans and vacuums in one pass. The use of steam at 150°C results in local thermal disinfection. Absolutely no chemicals are required when using the Calorvac DS7. Heat achieves the effect for which cleaning agents are normally deployed.



Cleaning outside the aircraft

Spray extraction

When removing carpet parts from the aircraft, we recommend deep cleaning the pile with a spray extraction system.

- 1st step: Properly vacuum-clean carpet to remove dust and dirt particles.
- 2nd step: Pretreat and remove stains as described above.
- 3rd step: Spray special cleaning agent over entire carpet area and let the product penetrate for about 10 to 15 minutes. Do not allow the cleaning agent to dry in the carpet.
- 4th step: Start cleaning procedure with the spray extraction machine.



Product recommendation

We recommend a cleaning machine with a powerful suction unit for the best possible removal of moisture and the shortest possible drying time. Our experience has been good with the Wetrok Extravac 340 for medium-sized to large carpet areas.



Video

Please find here the video clip showing the Lantal cleaning recommendation for carpet:

<https://www.youtube.com/watch?v=FI7bh0wQchl>

Genuine leather

Genuine leather

Lantal genuine leather is treated with a light tinted coat of varnish to enhance the functionality of the leather, making it light fast, water- and oil-repellent and permeable to steam.
Clean the leather parts regularly (once a month).

Dry Cleaning

For regular care, dry clean the leather with a dry cotton cloth unless stained. If stained make a deep cleaning intervention following the steps of the main cleaning process below.

Main Cleaning

We recommend to use a mild soap solution in order to carefully clean the leather.

1. Create a 10 – 20% soft soap solution and fill it in an aerosol.
2. Spray the soap solution on the stained areas of the leather surface. Then wipe off the soap water with fresh water and dry with a soft cotton cloth.

Stain Cleaning

For stain cleaning Lantal recommends products from Leather Master.

Do not use any unapproved chemicals!

Never use PE micro fiber fabric on leather or synthetic leather, as it could damage the leather surface.

Leather color Touch-Up dispersion

Touch-Up Paint is based on the same chemicals as are used during the production of Lantal genuine leather. When applied appropriately no negatively influence of the flammability properties of leather are expected.

A general Safety data sheet (not related to a specific colour) concerning all precautions in application, handling and storage of the product base composition is available.

Recommended use

Before use paint, solution must stirred well in order to guarantee an excellent dispersion of all chemicals.

The defective surface has to be clean and free of fatty residues or any dirt /dust particles in order to give a good adhesion of the paint on the leather surface. Paint application is suitable for retouching of small spots on leather surface. The defective spot can then be repaired by use of small brush or cotton stick or foam. Once the paint is applied it is important to give enough drying time (approx. 15 minutes.). Drying can also be done by blow dryer. After drying the repaired spot may be polished with a woolen cloth.

The Touch-Up Paint should not be used to spray large areas of a seat.

Storage conditions

After use, the bottle must be tightly closed and stored by cool conditions.

The paint can be stored up to 6 months.

Availability

The application of the product has to be done on defective spots only and therefore it is not needed in large quantities.

Paint for all Lantal leather colors are available in PE bottles with a content of 500ml.

TEC-Leather

For the spot stains

The TEC-Leather has a very good stain resistance. In case of spot stains please follow this procedure:

- Use a dry soft wipe or clothe to remove the stain.
- If it is not sufficient, use a sponge or a wipe impregnated with water.
- For the stronger stains we recommend to use an alcoholic solution*. Insist with an impregnated wipe or clothe in a circular motion if needed.

Never use an abrasive sponge or a strong brush, you could damage the surface

For the ground dirt

With the time, a homogeneous dirt deposit on the surface can occurs, especially on the very clear colors. To remove this deposit the best way is to follow this procedure:

- Use a wipe
- Impregnate the wipe with an alcoholic solution*
- Remove the dirt in a circular motion. The time, the strength and the solution amount have to be adapted in order to have the best result.
- Rinse the surface with a wipe and water.



It is better to clean more often on a light way than rarely strong cleanings.

Attention: Never use an abrasive sponge, strong brush, or cleaning products containing fillers (for scouring) to clean the TEC-Leather, you could damage the surface.

The bleach can be used to disinfect the surface, please don't forget to rinse the surface after use.

*Commercial cleaners containing alcohol are OK. Isopropanol or ethanol gives the best results (could be diluted in water at 50%)

Warning: Not recommended products

Lantal Textiles doesn't recommend the usage of solvent detergents other than alcohol to clean TEC-Leather.

These solvents (like acetone or white-spirit) can damage the surface and are not covered by the warranty.

Artificial leather

Artificial leather

The surface of Lantal's artificial leather repels water, perspiration, and oils, which makes it easy to clean. As a rule, a highly diluted solution with a neutral soap or a detergent is sufficient. The use of special cleaning agents should be restricted to stubborn cases. Such cleaning agents must be explicitly suitable for artificial leather.

Please use only recommended chemicals! Furthermore, do not use solvent-containing products!

Cleaning

1. Dust and crumbs, particularly around seams as well as between the seat and the backrest should be removed with a vacuum cleaner. Avoid sharp-edged nozzles.
2. Clean the artificial leather with a soft cotton cloth and a highly diluted solution (ratio 1:10) based on a neutral soap or a detergent; the surface should not become too wet. To achieve a uniform cleaning effect, apply only slight pressure and clean the artificial leather in generous swaths.
3. If the artificial leather is embossed, a soft brush can also be used to dislodge dirt from the recesses.
4. Wipe off the rest of the solution in several passes with small amounts of clear water. Use a soft cotton cloth for this process as well.
5. Then carefully wipe dry with a soft absorbent cloth.
6. Allow the surface to thoroughly dry at room temperature.

Cleaning frequency

Cleaning should be performed on a regular basis. Depending on intensity of use, cleaning is recommended every one to six months.

Wall coverings

Aramid / Aramid blend wall coverings

Lantal recommends to clean aramid wallcoverings with a special spot remover.

1. Removing spots

Oily and greasy spots to be sprayed with the special spot remover. Water soluble spots to be removed by dry spray followed by the general cleaning.

2. General cleaning

After spot removal, an overall cleaning/refreshing can be done by using the dry spray method.

Light transmitting fabric

Lantal recommends to clean the light transmitting fabric with a non-fluffing, non-abrasive wipe and water.