



AIRDAL® – LONG-LASTING PROTECTION AGAINST VIRUSES AND BACTERIA

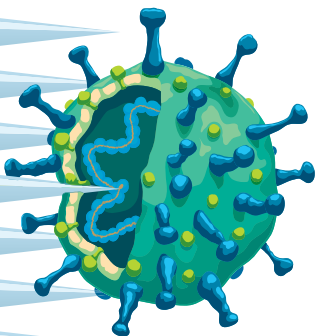
INVISIBLE & HIGHLY EFFECTIVE

THE ANTIVIRAL COATING FOR CONTACT SURFACES IN PUBLIC TRANSPORT

AIRDAL® prevents viruses or bacteria from adhering to surfaces. And does so for long periods. The invisible protective coating lasts up to 12 months on surfaces. The benefit: The treated surfaces don't need to be cleaned and disinfected so frequently – while still achieving the same level of infection protection.

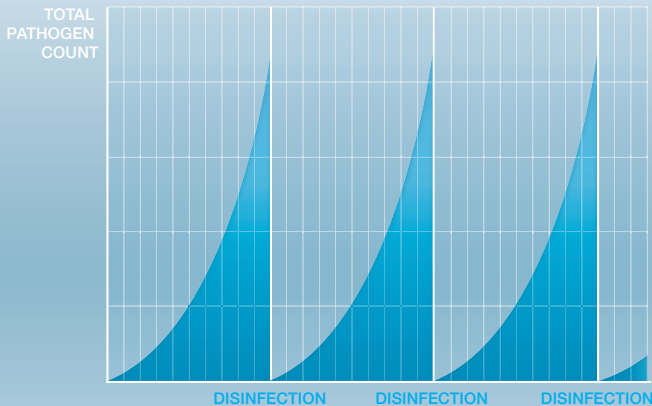
AIRDAL® acts entirely through its physical properties. After application, an ultra-thin protective film made of amorphous glass is formed. Ultra-miniature barbs in this film destroy the cell wall of microorganisms. Pathogens are eliminated through this effect and cannot be spread. Studies conducted by recognized testing laboratories show that after a short period the quantity of microorganisms on surfaces is reduced by approximately 99.9 percent.

The antiviral coating is offered exclusively by HÜBNER for applications in public transport.



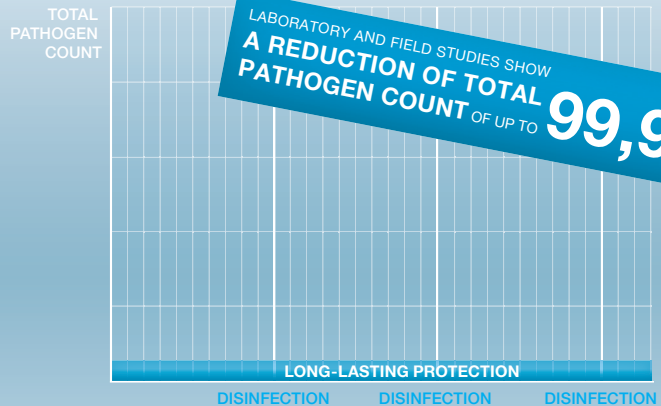
PROTECTION BETWEEN CLEANING CYCLES

Reduction of microbial growth between disinfection or cleaning cycles



STANDARD DISINFECTION PROCEDURES

In accordance with existing institutional protocols:
Disinfectant / Concentration / Exposure time / Application



AIRDAL® IN COMBINATION WITH STANDARD DISINFECTION

In those sections of a vehicle where AIRDAL® is used, additional chemical disinfection is not necessary. In general, vehicles should continue to be cleaned at the standard intervals.

AREAS OF APPLICATION

AIRDAL® can be applied on all products used in connection with public transport. Tests have shown no restrictions in compatibility. Treatment of all surfaces that come in direct skin contact – for example in entry areas and gangways, in seating areas, and also in the cockpit of rail vehicles and buses – is recommended. High levels of microbial settlement can occur on paneling, window panes and sealing profiles as well as on folding bellows in public transport vehicles. When these surfaces are touched, the germs can be transferred to passengers or employees. If germs then reach the mouth, nose or eyes, an infection can occur.

With AIRDAL® the risk of such smear infections can be reduced to a minimum. AIRDAL® is applied simply by damp wiping or spraying on the contact surfaces. On request, HÜBNER service technicians can carry out the treatment directly before the delivery of a new product. Vehicles can also be treated by HÜBNER technicians on site at a later time. Customers who wish to have their own employees apply AIRDAL® will receive the product with all necessary instructions for use from HÜBNER.

PROVEN EFFECTS

AGAINST TGEV CORONAVIRUS

VIRUS REDUCTION
AFTER 1 HOUR

- 99 %

VIRUS REDUCTION
AFTER 8 HOURS

- 99.9%

AGAINST ESCHERICHIA COLI BACTERIA

BACTERIA REDUCTION
AFTER 0.5 HOURS

- 99.62%

BACTERIA REDUCTION
AFTER 1 HOUR

- 99.95%

FAQ

WHAT ARE THE MOST IMPORTANT EFFECTS OF AIRDAL®?

It seals treated surfaces and provides one to twelve months of ongoing disinfection effect. AIRDAL® thus provides a significant and long-lasting reduction of infection risks coming from contact surfaces, contributing to infection protection. By contrast, new microbial settlement starts to occur shortly after application of chemical disinfectants.

AGAINST WHICH PATHOGENS IS AIRDAL® EFFECTIVE?

It eliminates all viruses and bacteria that typically can be transmitted via contact surfaces in public transport settings. Effectiveness against the coronavirus SARS-CoV-2 (cause of Covid-19) and against the intestinal bacteria Escherichia coli has been proven. In addition, AIRDAL® is effective against fungi, algae, molds and yeasts.

WHAT IS THE BENEFIT FOR TRANSPORT COMPANIES AND OTHER CUSTOMERS?

Treatment of surfaces is in any case a cost factor. The costs for treatment to protect surfaces with AIRDAL® are incurred at four month intervals but then allow for ongoing savings. These savings result from extending the cleaning and disinfection cycles. In addition, the surfaces that are sealed with AIRDAL® are also better protected against abrasion and soiling. A further added value: When passengers are informed about the treatment their feeling of safety increases.

DOESN'T THE COATING IMPAIR THE PHYSICAL OR FIRE-SAFETY CHARACTERISTICS OF PRODUCTS?

Products specifications, functionality and durability are not compromised by AIRDAL®. This is because AIRDAL® – unlike substances that act chemically – does not chemically interact with the material of the surfaces, regardless of whether it is fabric, plastic, glass, metal, rubber or silicone. HÜBNER has conducted its own tests on this point. The result: Also over a longer time of treatment, no optical aging effects (such as yellowing or dulling) or changes in the physical or fire-safety characteristics of the coating were found.

IS DISINFECTION WITH AIRDAL® BY ITSELF ADEQUATE OR SHOULD CHEMICAL DISINFECTANTS CONTINUE TO BE USED?

In those sections of a vehicle where AIRDAL® is used, additional chemical disinfection is not necessary. In general, vehicles should continue to be cleaned at the standard intervals.





**OUR TEAM WILL BE PLEASED TO BE OF ASSISTANCE
TO ANSWER QUESTIONS OR PROVIDE ANY FURTHER
INFORMATION.**

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