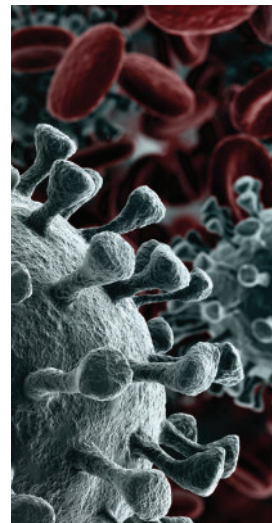


VALTO

ENGINEERED
MATERIALS



ANTIMICROBIAL TECHNICAL BULLETIN

COMPANY STATEMENT

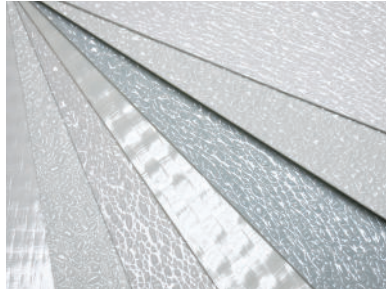


Our Stance Against Antimicrobial or Biocide Use in Our Products

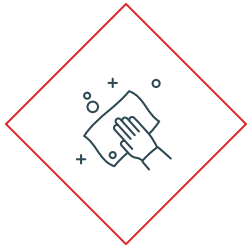
At VALTO Engineered Materials, the health and safety of our customers is our top concern. While the COVID-19 pandemic has sparked a renewed interest in antimicrobial coatings, we continue to follow the lead of the United States Centers for Disease Control and the World Health Organization. Both agree that rigorous cleaning and sanitization of surfaces is the most effective way to combat the spread of disease-causing organisms. The cleanability and durability of our products are hallmarks of our design and they meet the challenges of the post-COVID-19 marketplace.

PRODUCTS

WE HAVE TOUGH PANELS  FOR TOUGH ENVIRONMENTS



VALTO Engineered Materials fiberglass reinforced plastic (frp) wall and ceiling liners have a long history of standing up to the challenges faced in tough environments. Our liners have been the choice in thousands of vehicles where cleanability, durability, and low maintenance is required.



HYGIENIC

VALTO FRP HAS A COMPLETELY NON-POROUS, ROBUST, AND SCRATCH RESISTANT SURFACE

Our liners will not collect dirt, bacteria, or other dangerous organisms that can contaminate food or other items during transport.



NO PLACE FOR BACTERIA

VALTO FRP RESISTS THE GROWTH OF BACTERIA AND MOLD.

In 2020, our tests again confirmed that our products do not support or promote the growth of bacteria. Coupled with regular cleaning, where our FRP excels, bacteria does not stand a chance.



USDA/FDA/FSMA COMPLIANT

MEETS FOOD SAFETY COMPLIANCE ACROSS THE ENTIRE SUPPLY CHAIN

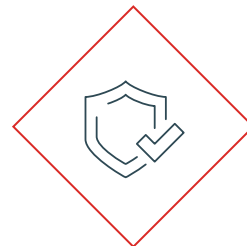
VALTO liners have been designed to allow for full compliance with USDA/FDA requirements for non-food contacting applications for years and support the Food Safety and Modernization Act.



CLEANABLE

A KEY STRENGTH OF OUR LINERS IS ITS DURABILITY TO THE STRONGEST CLEANING AGENTS.

Bleach, detergents, sanitizing wipes and sprays will not stain or change the color of our liner product and will have no effect on the long term performance of our products.



SURFASEAL FILM

AN INTEGRAL FILM FOUND ON ARMORTUF® + KEMILITE® LINERS, THAT PROVIDES A BARRIER

This film is NOT an additive, it is a key structural component integrated at the time of manufacturing to create a pore-free surface. VALTO is the only frp manufacturer with this unique film.

THE BIG DEBATE

ARE ANTIMICROBIAL SURFACE ADDITIVES WORTH THE RISK + COST?

An old idea that is new again is the concept of embedding antimicrobial agents in surfaces to create resistance to germs, mold, and other organisms. Additives commonly used include silver or copper nanoparticles, bactericides, or new materials such as grapheme.

KEY PLAYERS INVOLVED IN THIS DEBATE

ADDITIVES MANUFACTURERS

Antimicrobial products are being marketed as a failsafe means to perpetually fight bacteria and micro-organisms.

GOVERNING AGENCIES

The CDC, WHO, and other leaders in the health industries are cautious about the claims and benefits of antimicrobial surface treatments.



MYTHS ABOUT ADDING ANTIMICROBIAL AGENTS INTO PRODUCTS

WITH ANTIMICROBIAL AGENTS, THE PROBLEM IS SOLVED.

FACT: Without regular cleaning and sanitization, antimicrobial surface treatments offer limited resistance. They can also create a false sense of security where cleaning is minimized which can lead to the development of resistant organisms, sometimes referred to as Super Bugs.

VIRUSES ARE VULNERABLE TO ANTIMICROBIAL AGENTS.

FACT: No antimicrobial surface agent has been shown to be effective to viruses.

ANTIMICROBIALS ARE EFFECTIVE AGAINST ANY BACTERIA.

FACT: Common antimicrobials are effective against many bacteria but there are known resistant strains and the bacteria are evolving to become more resistant to antimicrobials.



FACTS + FIGURES



TOP 10

GLOBAL PUBLIC HEALTH THREATS FACING HUMANITY IS ANTIMICROBIAL RESISTANCE



29B

TONNE-KILOMETER FOOD MILES BY ROAD



2400km

ESTIMATED TRAVEL DISTANCE OF MEALS FROM FARM TO PLATE



48M

PEOPLE IN THE U.S. GET SICK EACH YEAR FROM FOOD-BORNE ILLNESS, 1 IN 6!

TIMELINE

For over 30 years, antimicrobial surface treatments have been the subject of debate. VALTO has followed the debate closely and made decisions based on leading research and studies.

1984 →

**ANTIMICROBIALS ENTER THE MARKETPLACE
PRODUCTS LAUNCH | TERMINOLOGY CATCHING ON**

Microban® is introduced as an additive for plastics, coatings, fabrics and surfaces.

1990'S →

**ANTIMICROBIAL MARKET GROWTH
POPULARITY RISES | ANTIMICROBIAL GAINS TRACTION**

Antimicrobial products grow in popularity from toys to tools to soaps and cleaners.

← 2011

**FDA FOOD SAFETY MODERNIZATION ACT (FSMA) LAUNCHED
FDA TAKES CONTROL | PREVENTING ILLNESS BECOMES GOAL**

Millions of people in the USA get sick from food-borne illness in a year. The FDA decided to make the prevention of illness the forefront rather than responding to it. In 2011, Congress launched the FSMA which outlines specific rules, at each point in the supply chain, that must be taken to prevent contamination.

← 2003

**CENTERS FOR DISEASE CONTROL (CDC)
ISSUES STATEMENT ON ANTIMICROBIALS**

CDC INVOLVEMENT | STUDIES CONDUCTED SEEKING EVIDENCE

The US CDC completed a study in 2003 that found there was no evidence that antimicrobial coatings offer any enhanced protection from the spread of bacteria and germs. According to the CDC, the most effective way to prevent the spread of infectious disease is to implement a stringent hygiene and cleaning regimen. This includes regularly disinfecting surfaces, using social distancing, and wearing a mask.

2016 →

**KAISER-PERMANENTE POSITION STATEMENT
HEALTHCARE INVOLVEMENT | STANCES AGAINST AGENTS/ADDITIVES**

In 2016, after completing an investigation into the chemicals used as antimicrobials, Kaiser-Permanente, the world's largest healthcare provider, banned paint and other interior building products treated with "germ fighting" antimicrobial agents from use in their hospitals, physician offices, and administration buildings.

2019 →

**EMERGENCE OF COVID-19 AND A RESURGENT
INTEREST IN ANTIMICROBIAL SURFACE TREATMENTS
COVID-19 PANDEMIC | REIGNITES INTEREST IN
ANTIMICROBIALS**

In late 2019, COVID-19 emerges and cleaning, hygiene & sanitization are key defenses that halt its spread

← 2020

**WORLD ANTIMICROBIAL AWARENESS WEEK INITIATED BY WHO
AND RENEWED STRATEGIES FOR LONG-TERM PUBLIC HEALTH
WHO SEEKS TO EDUCATE | PUBLIC HEALTH STRATEGIES GEAR UP**

World Health Organization launches World Antimicrobial Awareness Week with slogan "Antimicrobials: Handle with Care". The development of antimicrobial resistant organisms is a serious concern of the WHO, that declared them to be a top ten global public health threat facing humanity.

In recent years, there is a growing concern about the overuse of anti-microbial agents that could lead to more dangerous organisms that threaten global health. Leading government agencies are taking this matter seriously and are have issued strong positions against the use of antimicrobials, which is VALTO chooses against their use in our manufacturing process.

VALTO'S POSITION

Following the lead of the World Health Organization and the United States Centers for Disease Control, we have chosen to not pursue antimicrobial coatings for our products. We believe the risk and cost of antimicrobial surface treatments outweigh their value.

WHY CHOOSE VALTO LINERS

Our non-porous robust liners are designed for durable cleanability. VALTO liners do not require an anti-microbial additive because our product does not support the growth of microbes.



WHY NOT CHOOSE ANTI-MICROBIAL SOLUTIONS

The long-term performance of antimicrobial surface treatment is still not known and rigorous cleaning is still essential, otherwise bacteria and germs will still flourish.

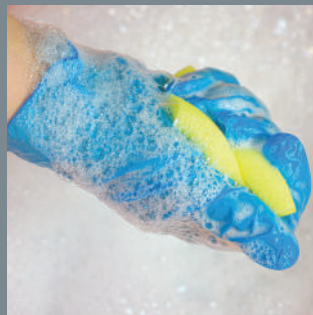


WHY ARMORTUF + KEMLITE LINERS WIN



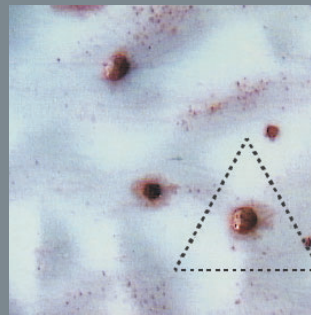
MOLD RESISTANT

Our FRP panels resist moisture & humidity and are certified to be mold & mildew free.



EASY TO CLEAN

Our FRP panels wipe clean with soap and water, but also stand up to any harsh chemicals + detergents & withstand repetitive cleaning cycles.



PORE FREE SURFACE

Our FRP panels are robust with a resin rich, dense surface, free from voids or pores that can trap dirt and moisture.



DURABLE

Our liners are engineered to last for the life cycle of the vehicle, while maintaining the same hygienic performance.

VALTO LINERS

WILL STAND UP TO THE TOUGHEST CONDITIONS
WE HAVE THE PROOF!



PROPERTIES

- Unique SURFASEAL finish making it stain resistant & easier to clean
- Lowest overall total cost of ownership due to ROI over time
- Chemical resistant and resistant to repetitive cleaning
- Moisture & humidity resistant, mold & mildew free
- Vapor barrier protection preventing transfer of spores
- Robust panel with resistance to impact and scratches
- Pore free surface, will not trap soil or bacteria
- Seamless, one-piece liners that are easy and quick to install

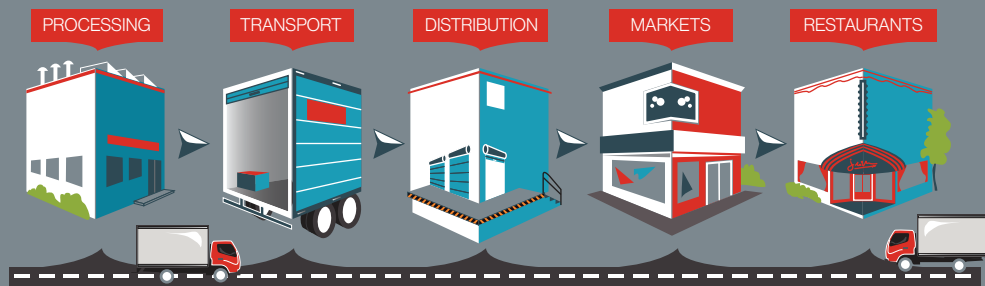
COMPLIANT WITH:

- USDA/FSIS requirements
- Food and Safety Modernization Act (FSMA)
- FMVSS 302 requirements
- Mold & mildew free, ASTM D3273 & ASTM D3274



APPLICATIONS

Our products have been used for over 65 years and are used today in food processing plants, restaurants, and in transportation truck bodies and trailers, because they are a trusted solution across the entire supply chain due to their clean, durable, and sanitary surface.



CLEANING

Our robust panels hold up under frequent maintenance cycles, even with caustic cleaning chemicals. Our liners will not stain or change color and they are designed to maintain their strength and integrity against even the most aggressive cleaners. The following have been tested and proven to be suitable for use in most exposure conditions:

- Spor-Klenz
- Process Vespene
- Bleach fogged hydrogen peroxide (vaporized hydrogen peroxide aka VHP)
- Lysol

WILL ALTERNATIVE PRODUCTS STAND UP TO
YOUR CONDITIONS LIKE OUR LINERS WILL?

WE HAVE THE PROOF, DO YOU?

since 1954

THE BEST OPTIONS FOR IMPORTANT PLACES



OVER
70
YEARS OF
EXPERTISE

At Valto, we partner with our customers, and through innovation, deliver advanced materials that enhance everyday environments. We succeed through a culture of collaboration, continuous improvement, and excellence. With integrity at our core, we challenge the status quo and pursue innovative approaches that benefit our customers and associates.

With over 70 years of innovative products and services, Valto Engineered Materials is a leading provider of FRP composite panels. Our lightweight composite products deliver unsurpassed strength and durability; and we continue to pioneer next level performance in building materials, recreational vehicles, and transportation.

VALTOtr.com | 1.800.435.0080 | sales@valtoem.com

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