



Anti-Microbial

There is sometimes a reticence among many healthcare professionals to use antimicrobial fabrics in a hospital environment. This reticence is caused by fears of the very phenomenon that initially created the resistant microbe, namely, sub-lethal doses of antibiotic resulting in adaptive organisms and immunity to the antimicrobial agent.



Shield Plus™ can counter those concerns. It is a unique and enduring anti-microbial treatment employed on all Panaz healthcare upholsteries and on selected print basecloths for curtains.

Why unique?

- It lasts and is effective for the life of the fabric
- 1. It does not wash out
- 2. It does not leach into the environment
- 3. It does not leach onto the skin
- 4. It stays on the fabric and remains effective
- 5. Curtain fabrics can be washed at thermal disinfection temperatures

The benefit of all the above is that it does not deplete and is therefore not known to create adaptive organisms or create immunity to the agent.

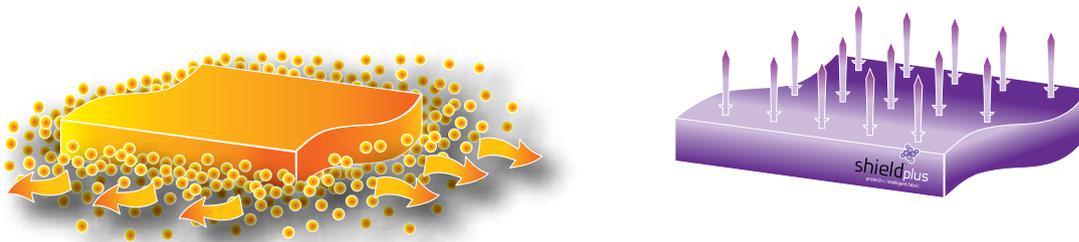
- It has the broadest reach of effectiveness – including the C Diff Spore!
- Effective immediately upon impact with the microbe
- It is more environmentally considerate than other anti-microbials such as those containing metals such as silver and copper

How does it work?

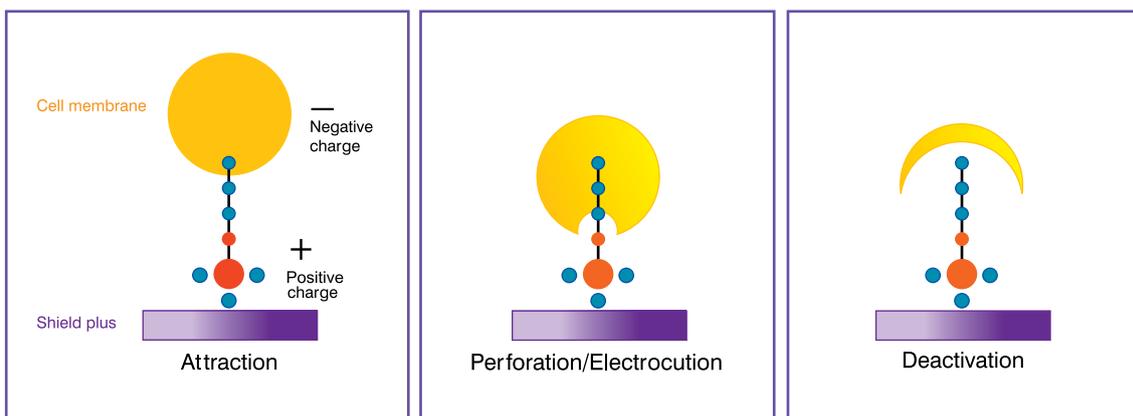
Unlike other anti-microbials, Shield is a non-leaching technology.

Almost all other antimicrobials (pesticides, fungicides, insecticides, disinfectants, sanitizers) act by leaching into the air or dissolving in a liquid to be absorbed by the microbe. Depending on the type of anti-microbial, the active ingredient is either dissipated rapidly or over a period of time - but all have a relatively short effective life.

Once inside the micro-organism conventional anti-microbials act by chemically poisoning, disrupting the life process or causing lethal mutation. The dosage is critical! Too little and the target organism is not controlled and can adapt. Too much and other living things can be harmed. By contrast, Shield Plus technology does not dissipate or leach. It is not absorbed by microbes or any other living things. Instead, it acts by rupturing the cell membrane of the micro-organism - when the microbe comes into DIRECT contact with the anti-microbial.



This rupturing interrupts the normal life processes and destroys the cell. The interruption is caused by two forces -the long chain chemical component and the positively charged nitrogen component. The first can be compared to a “sword”, the second to “electrocution”. Like a “sword”, the strength of Shield Plus™ is not used up or diminished when it acts. It can be used over and over again.



The unique bonding and killing capacity of Shield Plus™ with its one-two punch, allows it to effectively control an extremely broad spectrum of bacteria, fungi (mold, mildew and yeast), algae and other one celled organisms.

Because it acts only on the membrane and does not lose strength over time, it doesn't create the condition which allow micro-organisms to adapt to its presence or develop resistance. As conventional anti-microbials gradually lose strength from normal leaching, new, resistant micro-organisms can develop.

Features:

- Maintains freshness
- Durable for the useful life of the fabric
- Unmatched safety profile
- Will not leach into the environment or transfer to other articles or to the skin - no “zone of inhibition” in lab tests
- No arsenic, heavy metals or polychlorinated phenols
- Improved handle for fabrics
- Stops bacterial and fungal growth - the major cause of most fabric odour problems
- Controls or eliminates microbial staining and deterioration
- Unparalleled safety profile

Organism	Product	Visible Growth Under the Fabric
MRSA	Panaz Aston	No Visible Growth
Kl. pneumoniae	Panaz Aston	No Visible Growth
E.coli	Panaz Aston	No Visible Growth
Cl. diff spores	Panaz Aston	No Visible Growth

TEST REPORT
AATCC 147-2004



Lab ref – 4536a
Prepared by – D.Mellors

Report date – 26/4/12
On behalf of - Panaz Ltd
Address – Spring Mill
Fence, N r Burnley,
Lancashire
BB12 9HP

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Period of analysis – 30/01/12 – 03/02/12

Test Sample: Panaz Aston (coated surface in contact with the agar)

Control Sample: Not provided

Test Method: AATCC 147-2004

Aim:
The object of the test is to determine whether the test textile has bacteriostatic activity.

Test Organisms: MRSA NCTC 12493, *Klebsiella pneumonia* ATCC 4352, *E. coli* NCTC 10418 and *Clostridium difficile* spores NCTC 11209.

Results:

Discussion:

According to the standard to constitute acceptable bacteriostatic activity there must be no bacterial colonies directly under the sample in the contact area.

From the results obtained the fabric would be considered to have bacteriostatic activity against the test organisms.

No inhibition was noted around the fabric and hence it can be concluded that the antibacterial agent did not diffuse into the surrounding area.