



THIS IS WHAT HYGIENE LOOKS LIKE

To help textile manufacturers and brands provide their textiles with a durable sense of freshness and anti-bacterial properties, Microban® has developed a range of anti-odour technologies. Our experts will happily advise you on the best solution.

TANATEXCHEMICALS.COM

ADDING PASSION
TO TEXTILES.

PROTECTION THAT LIVES ON
MICROBAN®

TANATEX®
CHEMICALS



MICROBAN®

The greatest smelling success factor you'll ever know

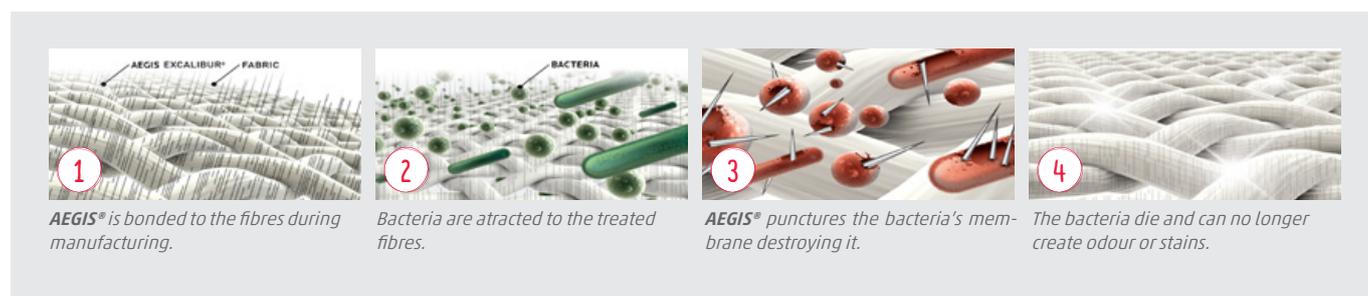
When end-users buy high-end textile products, they expect long lasting freshness and cleanliness. Both requirements are difficult to comply with, as bacteria are all around us, creating bad smells and sabotaging hygiene. To help textile manufacturers and brands provide a durable sense of freshness and antibacterial protection on their textile products, Microban® has developed a range of anti-odour technologies. With these products, you add value to your sportswear, socks, uniforms, towels, mops, home textiles or whatever product you work with. In the upcoming paragraphs, we tell you about the product range and the application methods.

AEGIS®

AEGIS® is based on an antimicrobial technology that has been proved to be a safe and effective way to eliminate odour-causing bacteria for more than 30 years. The solution is compatible with high-performing water repellent systems, as well as with many other auxiliaries used on apparel and footwear. Plus, it is 99,9% effective in reducing odour-causing bacteria for more than 40 home launderings.

How does it work?

The active ingredient in **AEGIS®** forms a colourless, odourless, positively charged polymer that molecularly bonds to the treated surface. This positive charge attracts bacteria to the treated fabric, where **AEGIS®** makes the bacteria -and its odours and stains- a thing of the past.



Application

AEGIS® can be applied to the fabric during the normal manufacturing process, and there are no additional steps required.

The product can be used for polyester, polyester-blends, fleece, insulation, fiberfill, foam, leather and synthetic leather.

Active ingredient: 3-(trimethoxysilyl) propyldimethyloctadecyl Ammonium chloride (quat silane)

Best uses: Cottons and synthetics

Application method(s): Cottons: Pad
Cottons: Exhaust
Synthetics: Pad

Durability of bacterial efficacy (# of washes):

Cottons: 25+

Synthetics: 25+

Test methods: ASTM E2149

Benefits

First of all, thanks to its cationic action that eliminates microbes causing odour, stains and deterioration, **AEGIS®** is highly effective. Second, as you add it during the normal manufacturing process, there is no need to add any additional steps, making **AEGIS®** simple in use. Third, it readily breaks down in the environment to basic, naturally occurring materials like water, silicon dioxide (sand) and carbon dioxide. This makes it a very sustainable solution. **AEGIS®** (AEM 5772) complies with the Bluesign criteria. Fourth, the applications of **AEGIS®** are versatile, as it can be used for polyester, polyester-blends, fleece, insulation, fiberfill, foam, leather and synthetic leather.



SILVERSHIELD®

Silver is found to be a very effective way to reduce microbes, even at low levels. Microban uses this quality in the **SILVERSHIELD®** solution, which is an economical and efficacious way to protect your textiles against bad smells, in a safe and a durable way. **SILVERSHIELD®** has a broad-spectrum approach as it combines antibacterial efficacy with excellent performance against odour causing bacteria. **SILVERSHIELD®** is compatible with textile dyestuff and finishing processes and has excellent wash fastness. Moreover, the solution is suitable for pad application and thanks to the duralink™ technology, it has superior bonding properties.

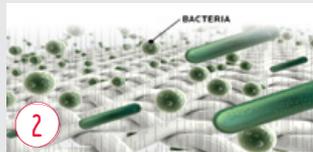
How does it work?

SILVERSHIELD® can be applied during the normal manufacturing process, and no additional steps are required.

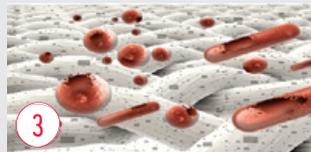
Thanks to the duralink™ technology, **SILVERSHIELD®** creates an extra durable bond with the fabric. It is infused into the fibres, penetrates bacteria, and eliminates their reproduction. This way, bacteria die and can no longer create odour or stains.



Microban's duralink™ system bonds **SILVERSHIELD®** antimicrobial to fibres during application.



Bacteria transfers to the treated fibres



SILVERSHIELD® penetrates bacteria, eliminating reproduction, it's ability to make food and eliminate waste.



The Bacteria die and can no longer create odour or stains.

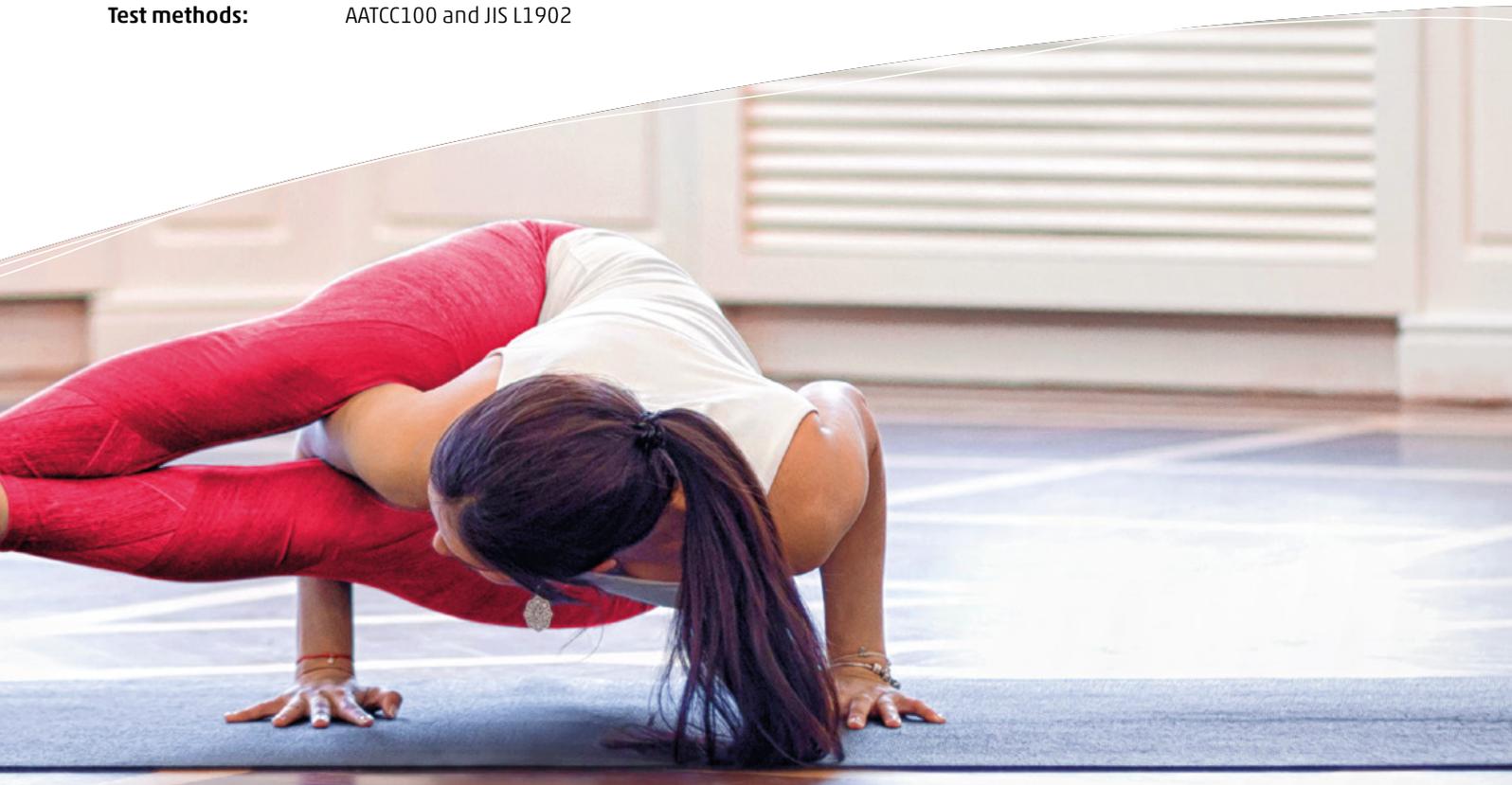
Features

SILVERSHIELD® can be used on cotton, poly-cotton blends, polyester and nylon. Here are some of its key features:

- Active ingredient:** Silver chloride
- Best uses:** Cottons and synthetics
- Application method(s):** Cottons: Pad
Synthetics: Pad
- Durability of bacterial efficacy (# of washes):**
Cottons: 25+
Synthetics: 25+
- Test methods:** AATCC100 and JIS L1902

Safety

Silver is not a nanomaterial, contains no heavy metals and has been used as a broad-spectrum antibacterial agent for thousands of years. It is formaldehyde free, and it does not have carcinogenic or mutagenic properties. Studies have shown that silver does not negatively impact naturally occurring skin flora of individuals who wear silver treated garments, but only reduces odour causing bacteria that are being transferred to garments during normal wear.



ZPTECH®

ZPTECH® provides odour control at the very source of the problem. It creates an extra durable bond with the fabric and its antimicrobial features both eliminate bacteria and fungi. This dual action makes **ZPTECH®** perfect for applications where moist, nutrient rich environments may lead to the growth of both bacteria and mold.

ZPTECH® provides protection against a broad range of both bacteria and fungi and reduces microbes. It scores high on durability and integrity and it is compatible with textile dyestuff and finishing processes. **ZPTECH®** is also compatible with other auxiliaries, such as moisture management, repellents and softeners. It has superior fungal performance on textiles that are in constant contact with moisture and has an extremely durable antibacterial performance on polyester fabrics.

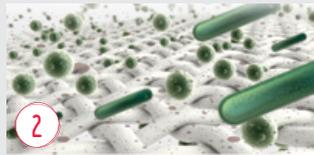
How does it work?

ZPTECH® comes in the form of a liquid dispersion that incorporates the antimicrobial power of zinc into textile fibres and foams, making it a very durable antimicrobial. It can be exhaust applied to the fabric during the normal manufacturing process and no additional steps are required. **ZPTECH®** has multiple modes of action and therefore minimises the risk of resistance development in bacteria and fungi.

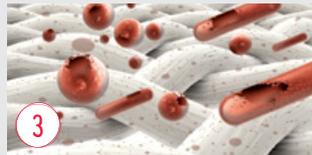
The power of **ZPTECH®** lies in its ability to disrupt the cell membrane, causing leakage of intracellular materials. It inhibits the transport of critical nutrients into cells, in the form of vital ions such as iron and calcium. **ZPTECH®** increases metal ion loading in cells, resulting in increased oxidative stress. It attacks enzymes used in ATP synthesis and disrupts the ability of cells to store and use energy.



1
Fibres are infused with ZPTECH®



2
Microbes transfer to the treated fibres



3
ZPTECH® starves the microbes and the microbes' membrane breaks down



4
Without a healthy membrane, microbes die and can no longer create odour or stains



Other microorganism

Apart from bacteria and fungi, **ZPTECH®** also fights other microorganisms that can cause bad smells or stains. It inhibits proton pumps in cell membranes and the transport of critical nutrients into cell, chelating metal ions that are critical to cell maintenance. **ZPTECH®** then attacks enzymes used in ATP synthesis, so that cells can no longer store and use energy.

Applications

ZPTECH® can be used on Polyester, poly-cotton, poly-elastane, nylon and PU foam. Some key details are:

Active ingredient: Zinc pyrithione

Best uses: Synthetics

Application method(s): Synthetics: Exhaust or pad

Durability of bacterial efficacy (# of washes):

Synthetics: 50+

Test methods: AATCC100 and JIS L1902

Benefits

ZPTECH® has a low or non-voc formulation, is formaldehyde free and contains no heavy metals. One of its key benefits revolves around sustainability, as it continuously inhibits the growth of microorganisms that cause bad smells and stains. **ZPTECH®** is based on an active ingredient with a long history of safe use in applications such as dandruff shampoo, cosmetics, apparel, footwear and medical applications.

It is registered with the EPA, BPR and Oeko-Tex 100 registration (class I-IV). **ZPTECH®** also complies with the Bluesign criteria.



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	Active ingredient	Best uses	Application method
ZPTECH®	Zinc pyrithione	Synthetics	Exhaust or pad
SILVERSHIELD®	Silver	Cottons	Pad
		Synthetics	Pad
AEGIS®	Quat silane	Cottons	Exhaust or pad
		Synthetics	Pad



Durability of bacterial efficacy (# of washes)	Test method	Product	Additive
50+	AATCC100 and JIS L1902	Microban Z06 R30700-480	
25+	AATCC100 and JIS L1902	Microban R73500-030	Microban R11500-0
25+			
25+	ASTM E2149	<ul style="list-style-type: none"> • AEGIS AEM 5700 • AEGIS AEM 5772 • AEGIS AEM 5772-5 	SPA-1
25+			

About TANATEX-Microban Cooperation

Since October 2017 TANATEX Chemicals has been official distributor of Microban International, the global leader in built-in antimicrobial protection. The partnership between high-profile textile industry leaders, benefits brands and manufacturers globally, making the best technologies more readily available and offering regional support for faster project turnaround times.

TANATEX Chemicals distributes Microban's entire range of odour control chemistries, including the AEGIS® product line, into Europe, the Middle East and Southeast Asia. Applications will include functional odour control finishes for textiles – apparel, footwear and home – as well as built-in protection for technical textiles.

Would you like to know more?

Contact our sales representative...



*We believe that with our passion we can
change the textile world. We improve experiences
and make new experiences possible.*



About TANATEX

TANATEX Chemicals breaks new ground with ultramodern textile processing solutions, ranging from pre-treatment to finishing. Through a global network of offices, agencies and distributors, we support our customers worldwide with advanced top quality wet processing products and a high level of technical and tailor-made service. For almost 60 years we have proven to be a trustworthy and innovative associate.

Since 2016 we are a company of Transfar Chemicals. Our cutting-edge products are based on the latest trends and demands in today's (technical) textiles and carpet processing industry. We do not sell mere products; we offer fit-for-purpose solutions. With an eco-friendly way of thinking, TANATEX experts are the ones to watch.