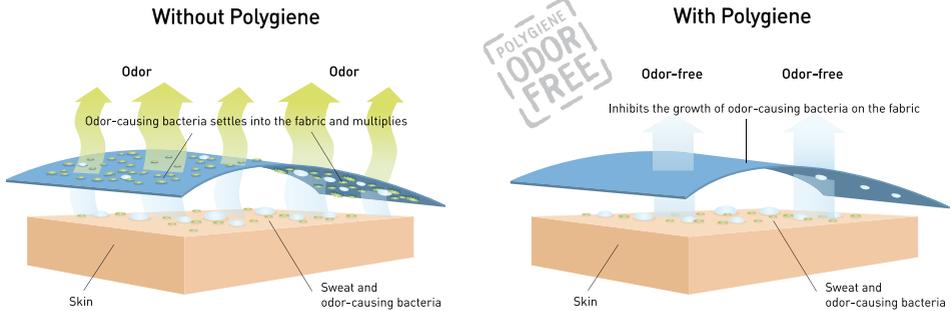


Polygiene questions and answers



What are the benefits of Polygiene?

- Polygiene inhibits the growth of microorganisms, such as bacteria and fungi that cause odor and skin irritation.
- Your garments, footwear and gear will:
 - Stay Fresh** – Polygiene inhibits the growth of odor-causing bacteria for that fresh-all-day feeling. Odor develops when bacteria settles into the fabric, mixes with sweat and multiplies.
 - Stay Hygienic** – Less bacteria and fungi in footwear, wetsuits and gear helps prevent fungi infections, such as athlete's foot and other skin irritations.
 - Be more environmentally friendly** – Polygiene-treated clothing can be worn for longer periods of time before laundering is required. Therefore less energy, water and detergent are used. When traveling or hiking, you can pack less clothing and travel light with less luggage.
 - Be permanently treated** – Polygiene treatment is guaranteed to last the lifetime of the garment, footwear or gear.
 - Last longer** – Prolongs garment, footwear and gear lifetime by eliminating the bacteria that break down synthetic fibers.

What makes Polygiene unique and how does it work?

- Polygiene is based on natural silver salt made from recycled silver.
- Silver salt is naturally present both in water (drinking water as well as sea water) and in the soil.

- Polygiene particles have a large amount of silver ions per surface area. Due to the structure of the particles, very small amounts of silver are required. Treating 5,000 garments or approximately 1,000 kilos of fabric requires the same amount of silver as one or two silver rings.
- Polygiene is applied to the fabric during the finishing stage at the same time as other treatments. This helps minimize impact on the environment because additional energy or water is not required.

Safe next to your skin?

- **Background in the healthcare sector** – In contrast to many other treatments, Polygiene has its heritage in the healthcare sector, and the technology is approved for use on open wounds. It is therefore safe for use next to the skin, even for people with eczema and blisters.
- **No interference with natural bacterial flora** – Polygiene is active only on the fabric surface and does not interfere with the skin's natural bacterial flora.
- **Polygiene particles are 100 times bigger than nanoparticles** – Polygiene are more than 100 times bigger than nanosilver particles and therefore are too large to pass through the skin.



Polygiene®
STAY FRESH

Environmental facts from a life cycle perspective

Production

- Polygiene is based on natural silver salt made from recycled silver. Silver salts are naturally present both in water (drinking water as well as sea water) and in the soil.
- The product is manufactured in the EU with minimal use of resources and in accordance with strict environmental regulations.

Application

- Polygiene can be applied at the same time as other fabric treatments. Because several treatments can be simultaneously applied, no additional energy or water is required thereby minimizing the impact on the environment.
- Polygiene does not require any binders, which are often based on toxic substances, such as formaldehyde.

When clothing is used

- *The useful effect of Polygiene makes clothing more environmentally friendly.* Because clothing can be worn for longer periods of time, Polygiene helps reduce both laundering and luggage requirements when traveling.

Laundering causes excessive energy consumption.

The consumer is responsible for between 65-80% of the energy consumption of a garment during its life cycle, due to laundering.¹ Less frequent laundering at lower temperatures saves energy, water and laundry detergent.

Polygiene silver salt is secured to the fabric.

A minimal amount of Polygiene silver salt is applied to the fabric and it stays securely bonded and does not dissolve in water. The amount of silver emitted when laundering Polygiene-treated garments is negligible compared to the silver already naturally present in the water and soil.²

Polygiene prolongs garment, footwear and gear lifetime.

Because bacteria and excessive laundering break down fibers, Polygiene makes garments and gear last longer so you don't need to buy new ones as often.

In the wastewater treatment plant

- Polygiene's silver ions are rapidly bound to the sulfur ions of bacteria present in sewage water and create an insoluble bond (inactive silver sulfide). The silver ions are therefore deactivated upon reaching the wastewater treatment plant and do not affect the final bacterial and biological rinsing stage.
- According to industry experts and third-party research, the low silver content in Polygiene and in the wastewater does not adversely affect the environment or the sewage sludge.³

Hard facts

- Polygiene permanent treatment is bluesign® approved, the textile industry's environmental standard that takes the entire product life cycle into account.
 - bluesign is supported and used by Patagonia, Haglöfs, The North Face and other leading brands.
 - bluesign is rated as "Highly recommended" by Greenpeace, Germany.
- On the Oeko-Tex list of approved products.
- Registered under the EU Biocidal Product Directive.
- Meets the requirements of REACH, the EU's chemicals legislation.
- Approved by the US Environmental Protection Agency.
- Garments, footwear and gear treated with Polygiene can be recycled according to the ECO CIRCLE system, a Japanese textile-recycling program.

1 Reference: "Well-dressed?", Cambridge University, UK, 2006.

2 Calculations for laundering tests are based on the official value for natural silver occurrence in water by the Swedish Environmental Protection Agency (Swedish EPA).

3 Results from the Swedish National Screening Programme 2007, sub report 5: Silver

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