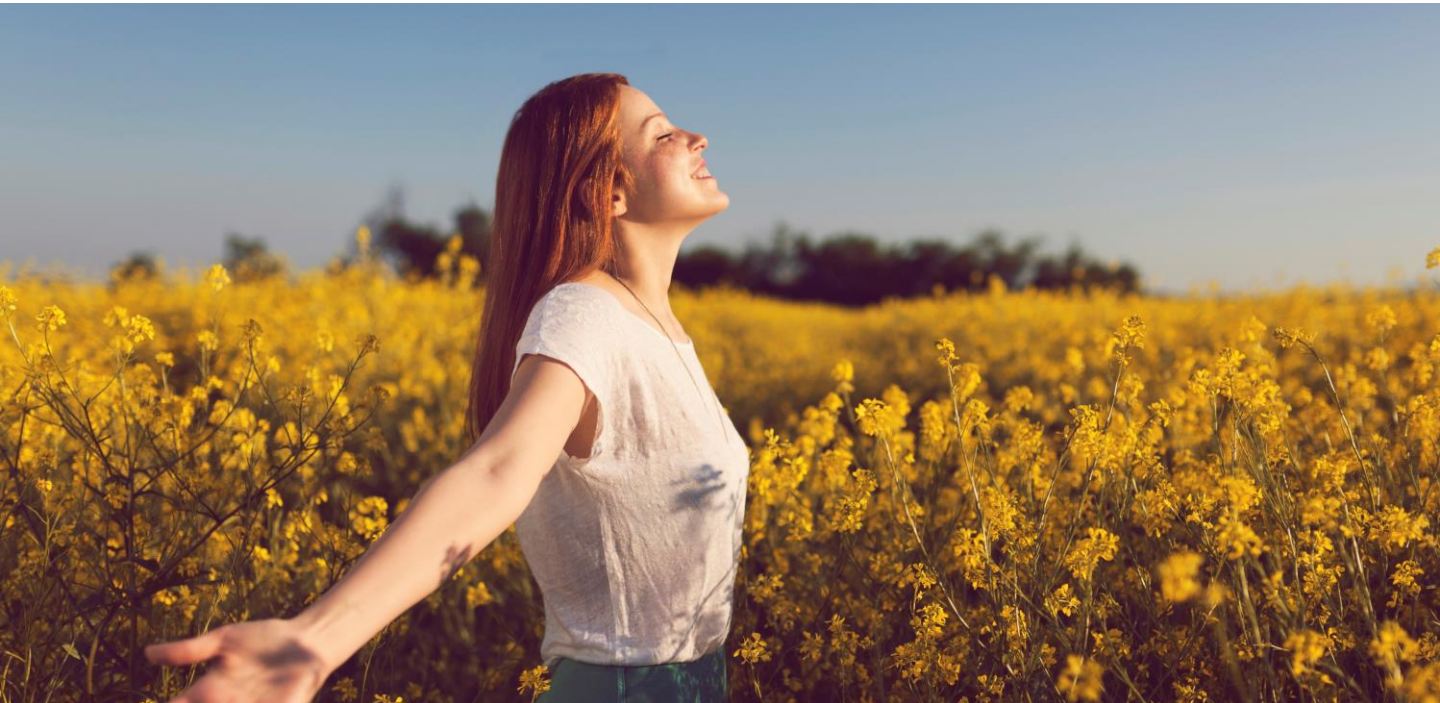
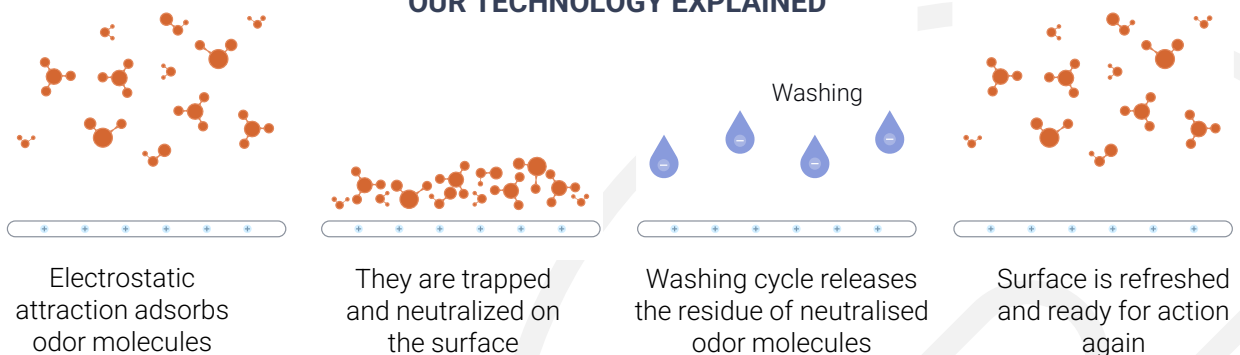


Livinguard AO

Next-gen biocide-free odor control technology, inspired by nature & powered with environmentally-friendly ingredients. Empowers textiles with a surface charge to enable a unique odor adsorption mechanism - attracts, adsorbs and neutralizes unpleasant odor molecules (such as isovaleric acid) to prevent the formation of 'permastink'.



OUR TECHNOLOGY EXPLAINED



ABOUT LIVINGUARD

Livinguard Technologies is a Swiss material science company focused on enhancing the functionality & performance of materials across various applications through the power of surface charge.

- Proprietary technologies with over 200 patents filed
- In-house capabilities with own microbiology & applications labs
- Unique expertise across applications and industries
- True partnership with deep collaboration & co-development



BENEFITS



Nonstop fresh: Proven to reduce up to 99% of odor as per ISO 17299-3 even after washing



Effective even on polyester: Provides consistent performance across all fabrics (esp. also polyester) where other odor control technologies fall short and odor build up remains a concern



Biocide-free: Powered with environmentally friendly active ingredients that do not require BPR or EPA approvals or labeling



Heavy metal free: Safer for people and planet (unlike traditional, harsher biocides like silver, copper, zinc that have been identified as potentially harmful)



Durable: Works non-stop even without washing and for the entire product life



Sustainable: Reduces the number of washing cycles and allows for washing at lower temperatures



Skin-safe: Tested for skin safety as per ISO 10993-5



Easily applied: Water-based liquid formulation applied through padding, kiss roll, exhausting or spraying with thermal curing as a finishing during the textile production process



Made in Switzerland: Swiss innovation, quality & reliability – globally available, manufactured by bluesign system partner



WHAT SETS US APART

Livinguard AO Positive Charge	Antimicrobial technologies	Odor-capture technologies	Odor-masking technologies
<p>Adsorbs and neutralizes odor at the molecular level through surface charge</p> <ul style="list-style-type: none"> ✓ Biocide-free & heavy-metal free ✓ Efficacious across broad range of odor sources & substrates ✓ Durable performance & safety due to non-leaching mode of action ✓ Cost effective 	<p>Reduces odor causing bacteria to prevent odor buildup</p> <ul style="list-style-type: none"> ✗ Biocidal products with increasing regulatory scrutiny due to safety & environmental concerns creating complexity for brands ✗ Decreasing efficacy over the course of the product lifetime of the textile due to leaching mode of action ✗ Limited efficacy on odor not caused by bacteria 	<p>Absorbs odor through mesoporous high surface area particles</p> <ul style="list-style-type: none"> ✗ Typically more expensive vs. alternative technologies ✗ Saturation between wash cycles decreasing efficacy ✗ Increasing scrutiny due to concerns around human toxicology 	<p>Masks odor through fragrance</p> <ul style="list-style-type: none"> ✗ No actual reduction of odor, but only masking through fragrance ✗ Decreasing efficacy over the course of the product lifetime of the textile due to leaching mode of action

APPLICATIONS

Everyday Apparel & Formal Wear

Sportswear & Outdoor gear

Underwear & Base Layers

Uniforms & Workwear

Pet Products

Home Furnishings & Upholstery

Household Textiles

Reusable Personal Hygiene

CONTACT

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