

Durable and effective antimicrobial performance for textile products

Innovative Sanitized® Puretec™ technology prevents the growth of odor-causing bacteria on fabric surfaces for long-lasting freshness and comfort



Adding value since 1935



TECHNOLOGY

What is new with Sanitized® Puretec™?

SANITIZED AG has completed a development project that proves the effectiveness of its quat-silane technology on polyester. Based on this, SANITIZED is now locating the quat-silane technology under the product portfolio Sanitized® Puretec™. Puretec™ thus comprises the current and future quat-silane products for application on different substrates.

What is the Sanitized® Puretec™ technology?

The basis of the Puretec™ technology by Sanitized® is the quaternary-silane active ingredient dimethyl-teradecyl-3-(trimethoxysilyl)-propylammonium chloride. At temperatures above 120°C, these molecules bond with each other and with the textile substrate. The result after application is a firmly adhering, wash-resistant coating of antimicrobial properties on the fibers.

MODE OF ACTION

How does the Sanitized® Puretec™ technology prevent odor in textiles?

The bacterial odor control feature provided by Puretec™ utilizes multiple functional surface modification techniques to control both the attachment and subsequent growth of bacteria on the fabric surface. The antimicrobial action of the quat-silane surface is attributed to the high cationic charge density of the fully polymerized siloxane polymer network directly against the bacterial cellular membrane that physically and ionically reacts with contaminating bacteria to destroy the organism on contact.

What makes the Sanitized® Puretec™ technology unique?

Unlike other antimicrobial agents, the quat-silane polymer system does not need to be released from the surface in order to provide durable bacterial odor control. This provides long-lasting effects without release of the active ingredient to the environment, making it a safe and sustainable solution for odor control in textiles.



APPLICATION

How are Sanitized® Puretec™ products applied?

Sanitized® Puretec™ products are offered in an easy-to-apply liquid formulation that can be integrated into multiple processing methods including pad, spray, and exhaust applications.

What substrates can Sanitized® Puretec™ be applied on?

Sanitized® Puretec™ T 20-19 can be used for synthetic fibers. The well-known and established Sanitized® Puretec™ T 99-19 can be used for cotton.

Can Sanitized® Puretec™ be combined in a dyebath with hydrophilic softener?

No, Sanitized® Puretec™ cannot be used in a dyebath with a hydrophilic softener.

GLOBAL COMPLIANCE/REGULATORY

Is the Sanitized® Puretec™ technology globally compliant?

Yes, Sanitized® Puretec™ products are registered with the U.S. Environmental Protection Agency (EPA), the active ingredient is listed and supported under the EU Biocidal Products Regulation (BPR), and the active ingredient is approved by Health Canada.

Does the Puretec™ technology have any additional safety/sustainability certifications?

Yes, the Sanitized® Puretec™ products are approved for OEKO-TEX® Standard 100, classes I-IV, and is bluesign® approved.

Is Sanitized® Puretec™ technology compliant with ZDHC?

Yes, the Sanitized® Puretec™ products are bluesign® approved.

Will Sanitized® Puretec™ have a negative impact on waste water treatment?

No, Sanitized® Puretec™ will have no negative impact.

USE/PERFORMANCE

What wash durability can be achieved using the Sanitized® Puretec™ technology?

Sanitized® Puretec™ treated fabrics have been tested up to 50 washes and have demonstrated optimal antimicrobial and odor control performance. Durability will vary based on the application dosage.

How is Sanitized® Puretec™ fixed on the PES fabric? Does it influence the hand feel?

Sanitized® Puretec™ is fixed to the fabric by a film cross-linking mechanism. There's no impact on the hand feel properties.

Does wash temperature impact the durability of the odor control feature?

SANITIZED AG recommends washing at 30 °C – 40 °C. Higher temperatures such as 60 °C or 95 °C are not recommended for PES sportswear.

What is the advantage of a metal-free technology?

Metal-free technologies are non-leaching, which means there is no release of the active ingredient off the treated product into the environment, resulting in effective, durable odor control.

Is Sanitized® Puretec™ safe to the wearer?

Sanitized® Puretec™ has been dermatologically tested and is proven to be non-sensitizing and non-irritating to the skin.

What is the cost of Sanitized® Puretec™ products?

The cost of Sanitized® Puretec™ products depends on the substrate and the requested effect level. The Sanitized® Customer Service Team can provide you with a cost estimate based on your performance goals.

BRANDING/PRODUCT CLAIMS

What branding opportunities are available for Sanitized® Puretec™ treated products?

Sanitized® Puretec™ treated products may be eligible to license the Sanitized® Actifresh ingredient brand. A brand partnership agreement is required.

What effect can I claim on my garment?

You can claim long-lasting freshness thanks to the integrated Sanitized® technology.

We are happy to answer additional questions and discuss individual projects with you.

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