



Bedbug
Mites Control
by Smart Innovation®

FACTSHEET

Si BEDBUG 101-TF

TEXTILE FINISH

PRODUCT DESCRIPTION

Sustainable functional finish with insect repellent properties effective for more than 100 washes in the fight against dust-mites, bedbugs and other bugs. Ideal for preventing allergic rhinitis, asthma, allergic conjunctivitis, dermatitis or atopic eczema. The Si Bedbug treatment provides long-lasting safe protection and cost-effective added-value to your home-textiles, whether they are fabrics, fibres, mattresses, bedlinen, carpets, rugs, curtains, pyjamas or nonwovens. This Si technology by Smart Innovation® is unique, 100% portuguese and patented in 147 countries.

EASY APPLICATION

Si Bedbug is applied at the manufacturing stage using the existing traditional finishing processes. It is supplied as a liquid and can be applied via padding, exhaustion or spraying. Si Bedbug is compatible with several other textile finishes and can be applied on both synthetic and natural fibres.

SAFE AND EFFECTIVE

Our products are tested according to international standards to meet regulatory requirements and demanding costumers. Si Bedbug is BPR approved, Oeko-Tex Standard 100 compliant and dermatologically tested. It is also safe for babies from 6 months of age and pregnant/breastfeeding women. With Si Bedbug, your textiles will be pushing bugs away for over 100 washes, drastically reducing the health risks associated with their presence while you sleep.

ECO-FRIENDLY

Smart Innovation® manufactures only environmentally sustainable functional treatments. The active ingredient used in the Si Bedbug treatment is USA FDA and EPA approved, REACH compliant, WHO recommended, does not contain Substances of Very High Concern (SVHC), has no toxicity and no environmental impact. This product is biodegradable and completely degraded in the environment within a very short time.

REPELLING VS KILLING

Products that kill dust-mites and bedbugs have a direct negative impact on all allergy symptoms. The carcasses of the dead bugs decompose on your mattress and bedsheets, contributing to more severe allergies when inhaled. Si Bedbug is a true repellent that simply drives bugs away. The treated textile will not allow any bug to sit on it. It has no toxicity and does not kill the insect, meaning there will be no resistance development against the product. We don't use Permethrin, Icaridin, DEET or other toxic insecticides which have high toxicity, environmental impact, very intense smell and are forbidden for use in children before 2-3 years of age.

THE ACTIVE INGREDIENT

The active ingredient used in Si Bedbug is IR3535®, a nature-inspired insect repellent which is not irritating to the skin, has no toxicity and neutral scent. This substance is manufactured by Merck and has been in the market for over 30 years. IR3535 is widely used in various types of products such as lotions and sprays. This is a worry-free solution for long-lasting and safe defence against insects.

Benefits of Si Bedbug

- *Prevention of allergies and skin bites.*
- *Long-lasting bedding protection.*
- *Easy to apply and cost-effective.*
- *Non-toxic and safe.*
- *High efficacy and long durability.*

BEDBUG ACTIVITY AND TESTING

Si Bedbug has been tested against various types of insects and proven excellent efficacy results.

Institutes:

- Insect Research & Development Limited, Cambridge, England
- Nettare Bio Labs Pvt Ltd, Bangalore, India

Test guidelines: ("mouse feed test" and "arm in cage testing"):

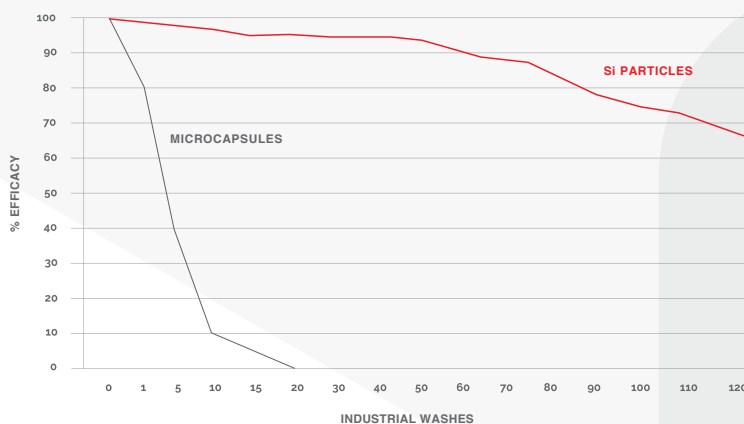
- AATCC 194 (American Association of Textile Chemists and Colorists) is an antimicrobial test against dust mites that performs an assessment of the anti-house dust mite properties of treated textiles under long-term test conditions.
- Halken S, Host A, Niklassen U, Hansen LG, Nielsen F, Pederson S, et al. Effect of mattress and pillow encasings on children with asthma and house dust mite allergy. *J Allergy Clin Immunol*.
- Report of testing to evaluate the effect of treated Sample on the establishment of a dust mite and bedbug colony when compared to an untreated control.
- WHO/CDS/NTD/WHOPES/GCDPP/2006.3
- WHO/CDS/NTD/WHOPES/2009.4
- USA EPA Product performance test OPPTS 810-3700
- European Commission - *Technical Notes For Guidance*:
 - Product Type 18 – Insecticides, Acaricides and products to control other arthropods.
 - Product Type 19 – Repellents And Attractants.

Bug species:

- *Dermatophagoides pteronyssinus*
- *Dermatophagoides farinae*

MICROCAPSULES vs Si PARTICLES

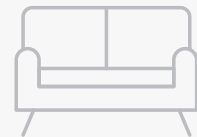
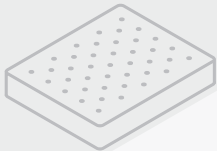
Our patented technology does not use microcapsules. The Si technology consists of a matrix of silica (Si) particles which carry the active ingredient on their surface and fixes it on the substrate, providing durability, high-performance and washing resistance. Unlike microcapsules, our innovative system is not affected by temperature, friction, UV exposure or other factors.



+ 100 WASHES

WHERE TO APPLY

- Home textiles
- Carpets
- Curtains
- Mattress
- Rugs
- Pillows
- Bed linen
- Sofas
- Pyjamas



THE SI HANGTAG

Innovative functions and added-value features must be promoted strongly. Use the Si hangtag to communicate the insect repellent protection incorporated in your products! This will help promoting the advantages and characteristics of Si Bedbug to the final customer. We provide 50 hangtags free of charge for every kg of product purchased.

