



## **Sanitized<sup>®</sup> TH 27-24**

Makes textiles fresh, attractive  
and long-lasting!



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- › Fungi protection
- › Rot proof

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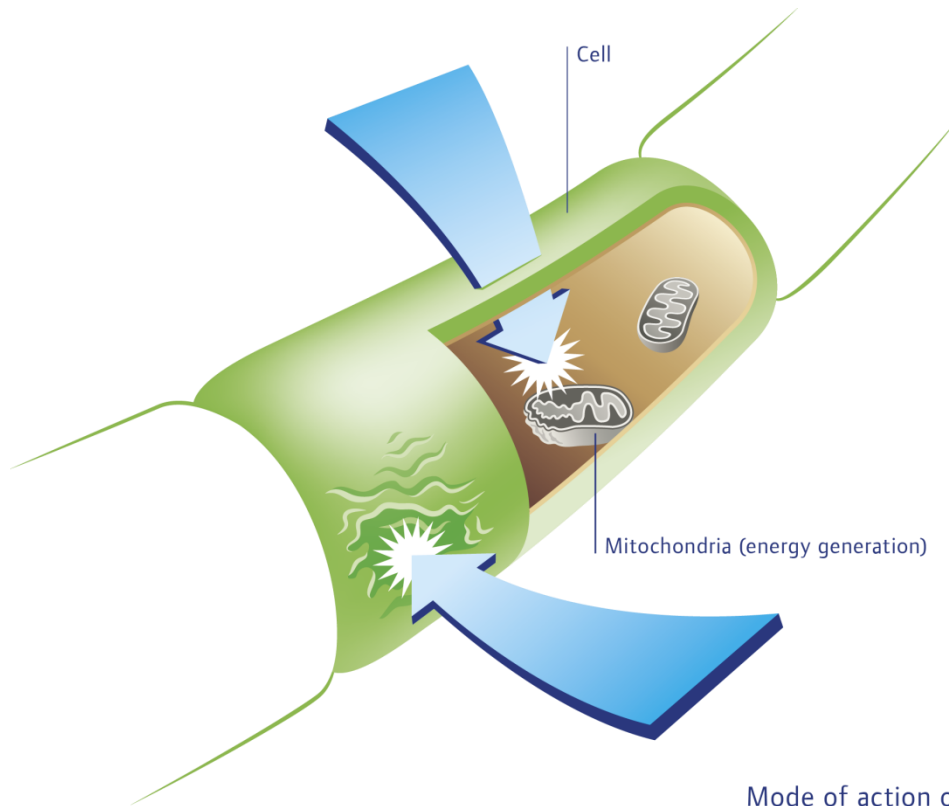
## Test methods incl. abstracts

# Characteristics of Sanitized® TH 27-24



- › Based on Zinc pyrithione  
(used in a large variety of cosmetic products)
- › Water based - white to beige dispersion
- › Slightly anion-active
- › Good temperature stability
- › Limited UV-light stability
- › Ready-to-use product
- › Patent pending for dust mite protection

# Illustration Zinc-Pyrithione. Mode of Action



Mode of action of zinc pyrithione in bacteria and fungi:

1. Destabilizes the cell membrane
2. Inhibits the generation of energy
3. Prevents the storage of energy

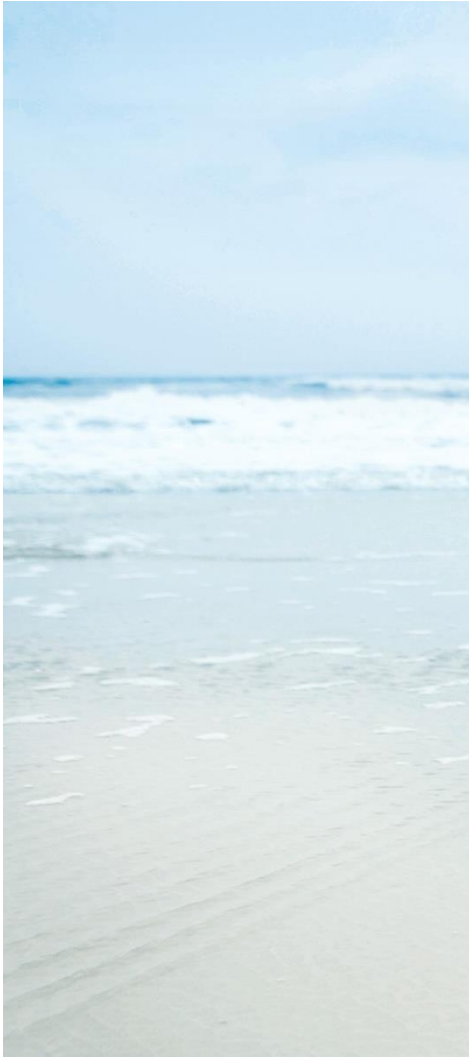


# Protection targets and effects

Hygiene protection		Material protection		Dust mite protection
Gram neg	Gram pos	Micro fungi Mildew algae	Rotting algae	Dust mites / Allergens
<b>Home Textiles without FC</b> Mattresses, bedding, carpets, furniture, etc.		<b>Technical Textiles with FC</b> liners, filter, jute and sand bags, construction textiles, coated textiles, glass fiber, upholstery, wall coverings etc.		<b>Home Textiles</b> Mattresses, bedding, carpets, furniture,

Rotting max. F4

# Application



- › Padding
- › Foaming
- › Coating

## Compatibility:

Binders	Appretan N 92111
Fluorocarbons	Nuva TTC, Nuva HPU
Flame retardants	Pekoflam NW liq., Pekoflam HSD liq., Pekoflam DPN liq. Conc.

# Recommended segments

- › Mattress
- › Upholstery
- › Sand bags
- › Construction textiles
- › Garden furniture



# Product safety



- › Allergy UK
- › OEKO-TEX Standard 100, classes I – IV
- › bluesign®
- › EPA registration







# Wash fastness

Sanitized<sup>®</sup> TH 27-24 has a reliable wash fastness, if the textile care follows the Sanitized<sup>®</sup> recommendation:

Textile care:

End articles which are treated with Sanitized<sup>®</sup> TH 27-24 should be washed carefully with a pH-neutral wash detergent. e.g. “wool wash detergent”



# Positioning of Sanitized® TH 27-24



	Sanitized® TH 27-24	Sanitized® AM 98-12N	Sanitized® AM 21-16	Sanitized® TH 26-11
<b>Hygiene function</b>	yes	yes	yes	no
<b>Fungi protection</b>	yes	yes	no	yes
<b>Dust mite protection</b>	yes	yes	yes	no
<b>Rot proof</b>	yes*	no	no	no
<b>EPA-Registration</b>	yes	no	no	no
<b>Allergy UK</b>	yes	no	no	no
<b>Oeko-Tex Standard 100</b>	yes	yes	no	no
<b>bluesign®</b>	yes	no	no	no

\* Together with fluorocarbon treatment

# Positioning of Sanitized® TH 27-24



	Sanitized® TH 27-24	Sanitized® AM 98-12N	Sanitized® AM 21-16	Sanitized® TH 26-11
<b>Wash fastness</b>	yes	no	yes	no
<b>Influence on water column</b>	weak	weak	weak	no
<b>Compatibility with other chemicals</b>	good	good	good	good

# Sanitized® TH 27-24



## Reference note: (confidential)

The following references should be considered when preparing the recipe to avoid a discoloration of the material:

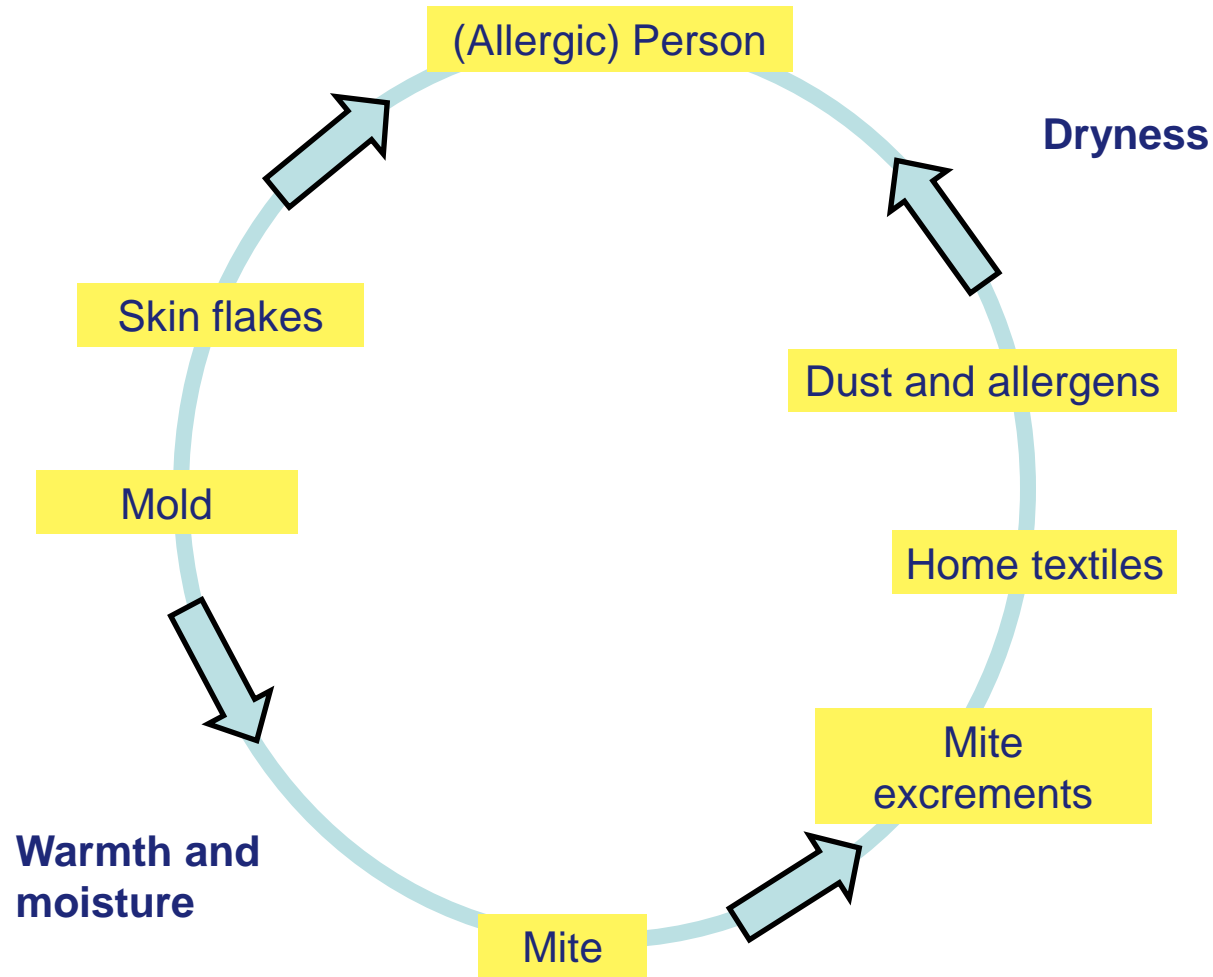
- › Do not overdose
- › Whenever possible avoid the use of citric acid
- › A high temperature treatment  $> 150^{\circ}$  C should be avoided however, if higher temperatures are necessary this should be tested.
- › Application methods not mentioned in the TI (technical information) must be tested previously.

# What are house dust mites?



- › 8-legged arachnids
- › Size 0.1 – 0.5 mm  
(Not visible to the naked eye)
- › 6 development stages
- › Lifespan of approx. 2-4 months
- › Females lay up to 150 eggs during their lifecycle
- › The ideal living conditions are 15 - 30°C and a relative humidity of 55 - 85 %.
- › Feed on human skin flakes and mold fungi
- › Excrements contain the allergen (DerPI)

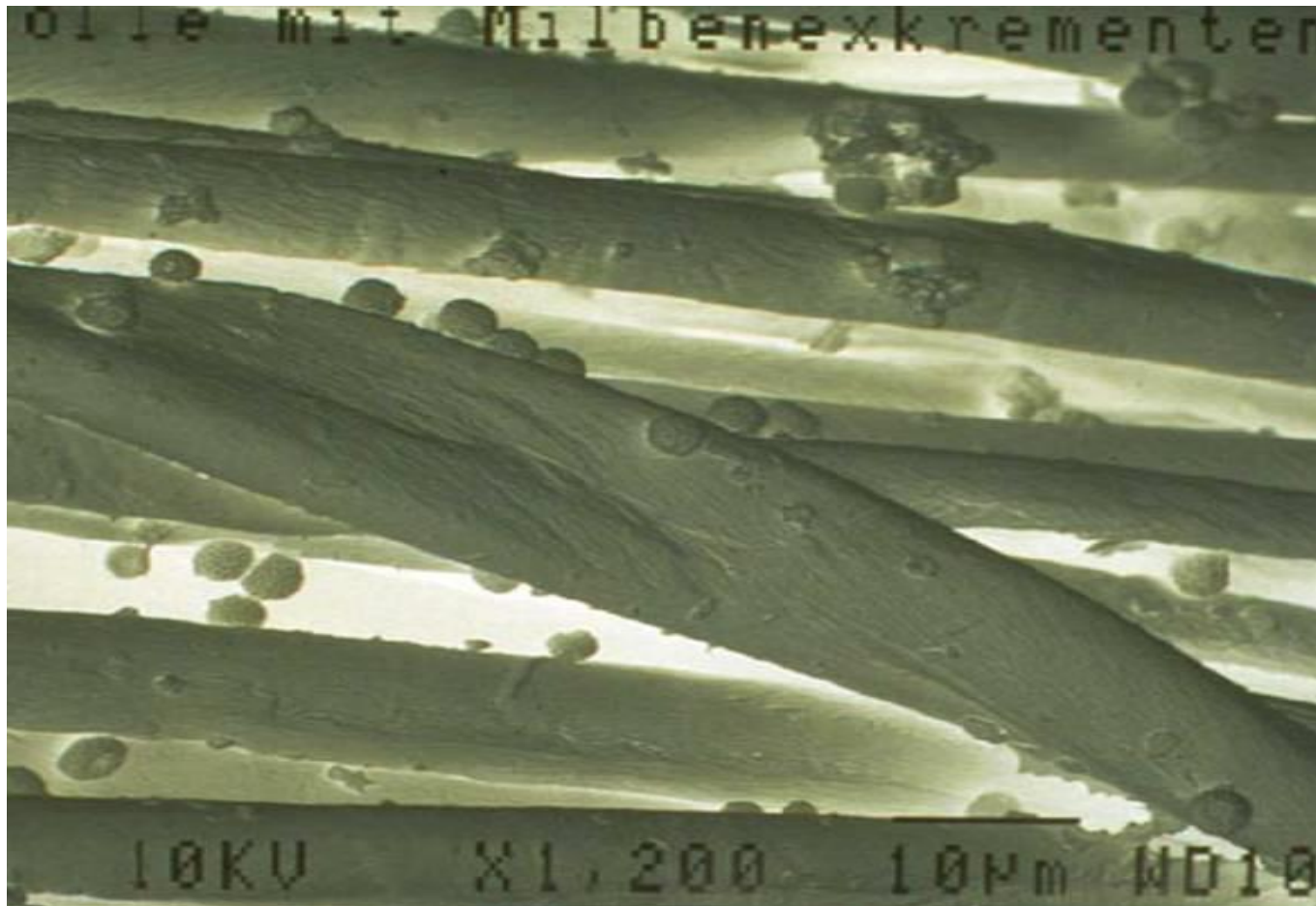
# Man and mite – a vicious circle



# Mite excrements containing allergens

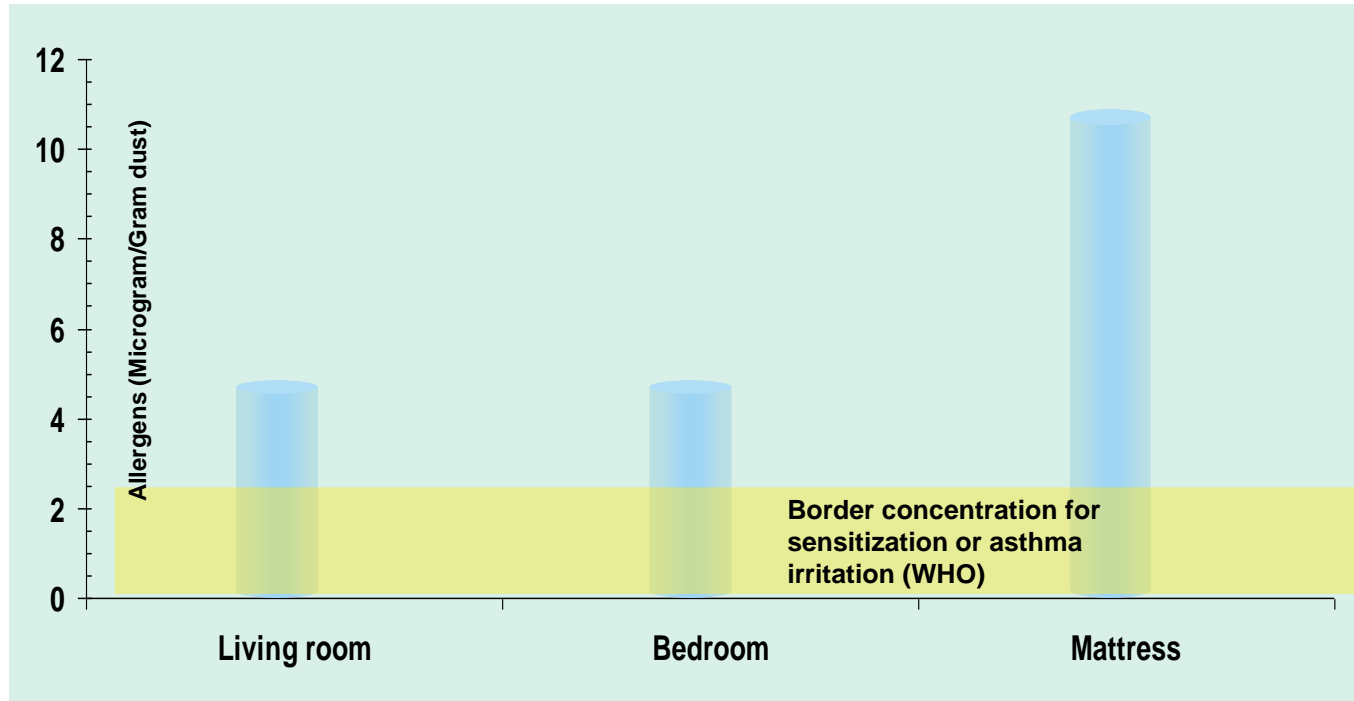
## Dust mite excrements on cotton fabric

Diameter 10 – 40 micrometer



# House dust mites and their allergens

## Allergen concentrations in households



Average concentration of dust mite allergens (Der p I) in house dust of 59 households in England 1989.

(R.Sporik et al.; Exposure to house dust mite allergen (Der p I) and the development of asthma in childhood)



# Mattress ticking and wadding treated with Sanitized<sup>®</sup>



Wadding protection with **Sanitized<sup>®</sup>**



Wadding untreated and contaminated



# Customer benefits

- › Keeps textiles permanently fresh
- › Prevents microbial development
- › Excellent effect against MRSA
- › Prevents mold stains
- › Prevents algae infestation
- › Rot proof performance
- › Durable (wash fast)
- › Dermatologically safe
- › Save resources, energy, costs



## Special: Construction Industry

# Geological and construction textiles



**Soil reinforcement**

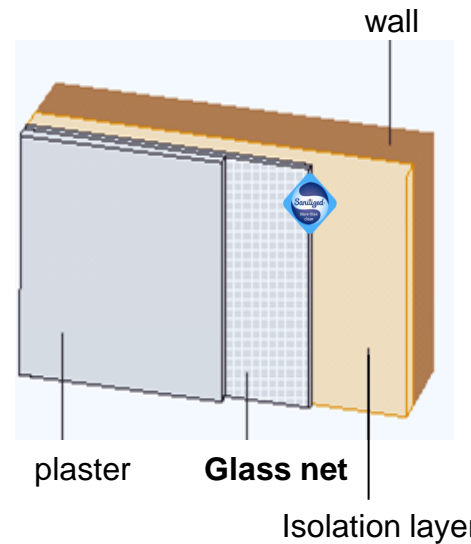


**Sand bags**

# Substantial benefit in material protection



## Slit renovation at house front / facade

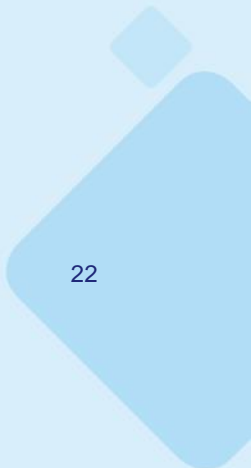
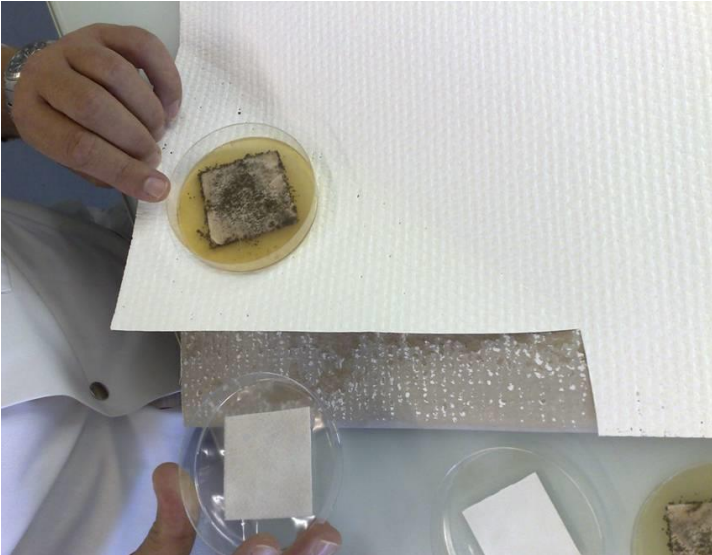




# Evaluation of antifungal performance



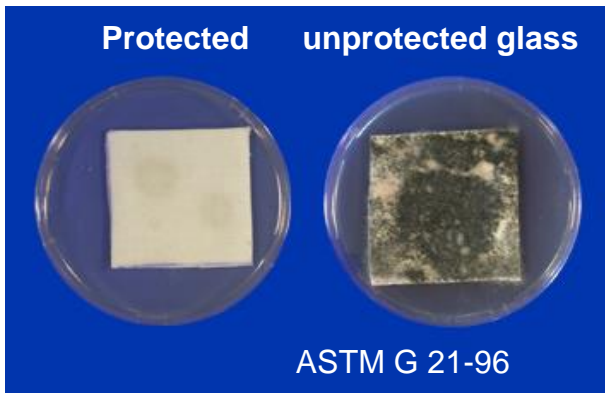
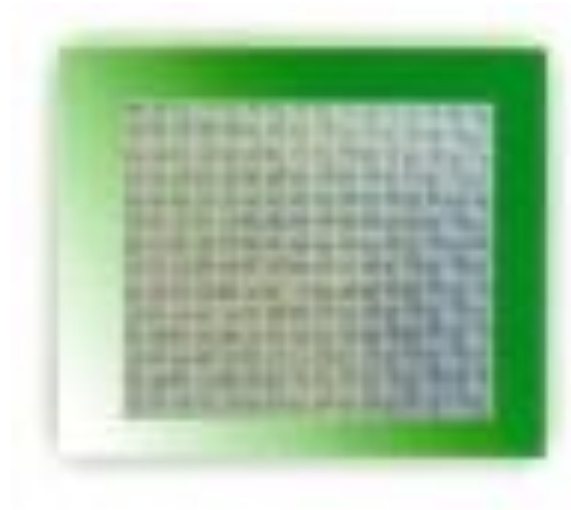
## Glass-net on plaster boards



# Enhancing lifetime of materials



## Damage caused by water



# Renovation



## Building up a new carrier system on walls

- › Appreciated visual and fashionable effect for private homes wet zones!
- › Durable protection against humidity, mildew and fungi spores.
- › Protecting physical properties of fibers.
- › Washable surface when combined with fitting disperse colors.











# Sanitized<sup>®</sup> TH 27-24

Test methods

# Recommended test methods



<b>Bacteria</b> 	<b>Fungi</b> 	<b>Algae</b> 	<b>Mites</b> 
SN 195 920 AATCC 147	SAN BIO 12/94 AATCC 30	SAN BIO 33/99	HPLC-analysis
	ASTM G 21-96 (resistance to fungi)		NF G 39-011 (TEC, France)
	EN ISO 11721-1 (soil burial)		



**Making decisions as partners.**