



## Summary of Test Methods



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METHOD	MATERIAL	TEST NORM	MAIN POINTS
Antibacterial	Non porous material	JIS 2801 / ISO 22196	Widely used for polymer testing
Antimicrobial	Polymer matrix, powder, fiber, etc.	ASTM E2149	Dynamic conditions
Antifungal	Polymer matrix	ISO 846 / JIS 2911:2010	Visual (qualitative)
Antimicrobial	Polymer matrix, powder, fiber, etc.	Macrodilution method (CLSI)	Widely used for antibiotic testing
Antimicrobial	Polymer matrix, powder, fiber, etc.	Macrodilution method (SIAA)	MIC values
Antimicrobial	Textile	JIS 1902 / ISO 20743	Reference method for Textile products

## Other methods:

METHOD	MATERIAL	TEST NORM	MAIN POINTS
Antifungal	Paints	UNE EN 15457	Visual (qualitative)
Antibacterial	Textile	AATCC 100	Zone diffusion assay
Durability test	Textile	JIS L 0217	Washing test before antimicrobial testing
Durability test	Textile	ATCC Method 61 Type No. 2A	Washing test before antimicrobial testing
Antifungal	Synthetic polymeric material	ASTM G21	General procedure

# Microorganisms tested and available at NBM Lab

## BACTERIA

### Tested at NBM

- *Staphylococcus aureus* (CECT 86, ATCC 12600)
- *Escherichia coli* (CECT 516, ATCC 8739)
- *Methicillin-resistant Staphylococcus aureus MRSA* (CECT 5190, ATCC 43300)
- *Listeria innocua* (CECT 910, ATCC 33090)
- *Pseudomonas aeruginosa* (CECT 110, ATCC 10145)
- *Klebsiella pneumoniae* (ATCC 4352)
- *Vancomycin-resistant Enterococcus faecium* (VRE) (CECT 5253)

### Tested at Official Laboratories

- *Legionella pneumophila* serogrupo 1 (CECT 7109) Tested at Control Microbiológico
- *Salmonella typhimurium* (CECT 4594) Tested at Control Microbiológico

## FUNGI AND YEASTS

### Tested at NBM

- *Aspergillus niger* (CECT 2807, ATCC 6275)

### Tested at Official Laboratories

- *Candida albicans* (CECT 1394) Tested at Control Microbiológico

## VIRUS

- *Influenza Virus H1N1* ATCC-VR 1469. Customer Brochure. Tested at Institut Pasteur (France)
- *Feline calicivirus* (FCV) and *Norovirus*. Tested at IATA, official organization of CSIC.

## TYPICAL MICROORGANISMS FOR JIS Z 2801 / ASTM E 2149:

- *Staphylococcus aureus* (CECT 86, ATCC 12600)
- *Escherichia coli* (CECT 516, ATCC 8739)



**Note:** BactiBlock® is effective against a broad spectrum of bacteria and fungi. We can test antimicrobial performance against other microorganisms upon customer request.