

FANTEX® – THE FACTS

Fantex® is a broad-spectrum disinfecting agent that has rapid and potent efficacy against bacteria, viruses and fungi. Fantex® has undergone rigorous independent testing by MGS Laboratories, the UK's pre-eminent accredited antimicrobial and disinfectant testing laboratory, used by leading pharmaceutical and FMCG corporations. Pathogens tested against are clinically relevant strains, including antibiotic-resistant ones.

Bactericidal & Fungicidal Efficacy		
Pathogen	Efficacy	Contact Time
<i>Pseudomonas aeruginosa</i>	>5.42 log reduction*	1 minute
<i>Escherichia coli</i>	>5.44 log reduction*	1 minute
<i>Staphylococcus aureus</i>	>5.17 log reduction*	1 minute
<i>Enterococcus hirae</i>	>5.18 log reduction*	1 minute
<i>Clostridium difficile</i> (vegetative)	5.10 log reduction*	5 minutes
Carbapenem-resistant <i>Acinetobacter baumannii</i>	>5.39 log reduction*	1 minute
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)	>5.14 log reduction*	5 minutes
Vancomycin-resistant <i>Enterococcus</i> (VRE)	>5.08 log reduction*	5 minutes
Carbapenem-resistant <i>Enterobacteriaceae</i> (CRE)	>5.33 log reduction*	5 minutes
Carbapenemase-producing <i>Enterobacteriaceae</i> (CPE)	>5.33 log reduction*	5 minutes
<i>Candida albicans</i>	>4.09 log reduction **	5 minutes
<i>Candida auris</i>	>4.54 log reduction**	5 minutes

BS EN 1276 Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics
BS EN 1650 Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics.

* "Pass" according to BS EN 1276; Fantex® concentration 1-2%; dirty conditions

** "Pass" according to BS EN 1650; Fantex® concentration 1%; dirty conditions

Virucidal Efficacy		
Pathogen	Efficacy	Contact Time
<i>Feline coronavirus</i> (MERS surrogate)	4.17 log reduction*	5 minutes
<i>Influenza HK (A2)</i>	0.15%**	10 minutes
<i>Herpes simplex type 1</i>	0.15%**	10 minutes
<i>Vaccinia virus</i> (smallpox)	0.15%**	10 minutes
<i>Rotavirus</i> (gastroenteritis)	0.1%***	5 minutes
<i>Avian infectious laryngotracheitis virus</i>	0.01%***	15 minutes
<i>Avian herpes virus</i> (Marek's disease)	0.01%***	15 minutes
<i>Fowl pox virus</i>	0.04%***	15 minutes
<i>Transmissible gastroenteritis of swine virus</i>	0.04%***	180 minutes
<i>Foot & mouth virus</i>	1.0%***	30 minutes
<i>Feline calicivirus</i> (norovirus surrogate)	0.1%**	5 minutes
<i>Canine parvovirus</i> (enteritis)	0.2%***	15 minutes
<i>Avian influenza</i> (H7N1)	2.0%***	30 minutes
<i>Avian influenza</i> (H5N1)	3.0%**	10 minutes

* "Pass" as tested according to BS EN 14476 Quantitative suspension test for the evaluation of virucidal activity in the medical area; Fantex® concentration 1%

** Effective concentration of Fantex® as assessed using quantitative surface testing

*** Effective concentration of Fantex® as assessed using quantitative suspension testing

Fantex® Self-Disinfecting Fabrics

Speed of Kill

It is crucially important that an antimicrobial curtain kills microbes quickly. This is so that any bacteria or viruses deposited on the curtain fabric by a contaminated hand are subjected to the full force of the antimicrobial's killing efficacy before another hand touches the same area and becomes contaminated with the pathogen.

Bactericidal & Fungicidal Efficacy of Textiles		
Pathogen	Log Reduction	Contact Time
<i>Staphylococcus aureus</i>	>3.2*	1 minute
<i>Klebsiella pneumonia</i>	3.8	1 minute
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)	>3.0*	1 minute
Vancomycin-resistant <i>Enterococcus</i> (VRE)	3.9	1 minute
Carbapenem-resistant <i>Enterobacteriaceae</i> (CRE)	3.0*	1 minute
Carbapenemase-producing <i>Enterobacteriaceae</i> (CPE)	3.0*	1 minute
<i>E. coli</i>	>3.7	1 minute
<i>Candida auris</i>	>3.5	5 minutes

ISO 20743 Determination of antibacterial activity of textile products

* All bacteria in the assay were killed within 1 minute

Agar Diffusion Tests	
Pathogen	Efficacy
<i>Escherichia coli</i>	Good effect - Zol*
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)	Good effect - Zol*
<i>Clostridium difficile</i> (vegetative)	Good effect - Zol*
<i>Candida albicans</i>	Good effect - Zol*
<i>Aspergillus niger</i>	Good effect - Zol*
<i>Staphylococcus aureus</i>	Good effect - Zol*

BS EN ISO 20645 Determination of antibacterial activity - agar diffusion plate test or Kirby-Bauer agar diffusion test

* Zone of Inhibition produced by curtain fabric demonstrating effective protection

Longevity of action

Hygenica has done significant work to demonstrate that its curtain/blind fabric retains antimicrobial efficacy for the full lifetime of the product. It is not sufficient to simply test product that has been stored post-manufacture. Instead we test curtains and blinds that have been removed from hospitals at the end of their designated lifespan. We have also conducted laboratory environmental testing in which the fabric is exposed to UV, temperature cycling and humidity.

Curtains Installed for 3 Months	
Pathogen	Efficacy
<i>Staphylococcus aureus</i>	Good effect - Zol*
<i>Staphylococcus aureus</i>	Good effect - Zol*

BS EN ISO 20645 Determination of antibacterial activity - agar diffusion plate test

*Zone of Inhibition produced by curtain/blind fabric demonstrating effective protection. Two samples tested.

Curtain Fabric Exposed to 18 Weeks Equivalent Outdoor UV Irradiation in a Weathering Chamber	
Pathogen	Efficacy
<i>Escherichia coli</i>	Good effect - Zol*
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)	Good effect - Zol*
<i>Clostridium difficile</i> (vegetative)	Good effect - Zol*
<i>Candida albicans</i>	Good effect - Zol*

Kirby-Bauer agar diffusion test

*Zone of Inhibition produced by curtain fabric demonstrating effective protection.