



# Biomaster

Antibacterial Technology

## Antibacterial Test Report

**Study report:** Determination of the Antibacterial Activity of Medi-Shower incorporating Biomaster 612 against *Escherichia coli*, *Staphylococcus aureus*, *Campylobacter*, *Legionella* and *Pseudomonas aeruginosa*.

**Client:** Multishower GB Ltd  
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BT48 4EA

**Certificate No.** 1025924.207/9292 & 1025832.219/9263

**Dated:** 10th November 2014

# Study report - Medi-Shower

## Summary of Study

To determine the efficacy of Biomaster Antibacterial Technology, **Multishower** submitted **Medi-Shower samples** containing Biomaster 612.

**Test Method:** ISO 22196:2011  
**Laboratory:** Industrial Microbiological Services Ltd.  
**Certificate No.** 1025924.207/9292 & 1025832.219/9263



***Staphylococcus aureus** is a Gram-positive cocci bacterium that is a member of the Firmicutes,. It is frequently found in the human respiratory tract and on the skin.*

## Summary of Procedure

Samples were tested to ISO 22196:2011. This method is a quantitative test designed to assess the performance of antibacterial properties on hard, non-porous surfaces.

Submitted samples are challenged against stock cultures of *S.aureus*, *E.coli*, *Campylobacter*, *Legionella* and *Ps.aeruginosa* purchased from ATCC.

Samples are inoculated using a known amount of the above cultures and incubated for 24 hours at 37°C according to ISO 22196:2011. TVC (Total Viable Count) of bacteria are then recorded and the percentage of reduction is calculated.

All testing is carried out independently at Industrial Microbiological Services Ltd.



***Escherichia coli** is a Gram-negative, facultatively anaerobic, rod-shaped bacterium of the genus Escherichia. It is commonly found in the lower intestine of warm-blooded organisms.*

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## Test results

The table below shows the results recorded by Industrial Microbiological Services Ltd using the ISO 22196:2011 standard.

Sample	Species	Contact time		Reduction
		0hrs	24hrs	
Medi-Shower containing Biomaster 612	<i>E.coli</i>	1.9E+04	<11.11	≥ 99.99%
Medi-Shower containing Biomaster 612	<i>S.aureus</i>	2.1E+04	<11.11	≥ 99.92%
Medi-Shower containing Biomaster 612	<i>Campylobacter</i>	1.4E+04	3.1E+01	99.78%
Medi-Shower containing Biomaster 612	<i>Legionella</i>	1.5E+04	<11.11	≥ 99.93%
Medi-Shower containing Biomaster 612	<i>Ps.aeruginosa</i>	1.7E+04	<11.11	≥ 99.93%

## Conclusion

From the results it was seen that when incorporating Biomaster 612 into the Medi-Shower excellent results were achieved and antibacterial testing passed.

