



Biomaster

Antimicrobial Technology

Antimicrobial Test Report

Study report: Determination of the Antimicrobial Activity of WLK50 against *Escherichia coli* and *Stapylococcus aureus*.

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Summary of Study

To determine the efficacy of Biomaster Antimicrobial Technology, **Döllken Profiles GmbH** submitted samples containing an antibacterial technology.

Test Method: ISO 22196:2011
Laboratory: Industrial Microbiological Services Ltd.
Certificate No. 1035110.40/12113 & 1035110.52/12114

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 Staph.aureus and E.coli purchased from ATCC.

Samples are inoculated using a known amount of the above cultures and incubated for 24 hours at 35°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.



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



***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	
Reference Sample	E.coli	2.5E+04	6.1E+05	
WLK 50 with antibacterial technology	E.coli	2.5E+04	< 11.11	≥ 99.96%
Reference Sample	Staph aureus	2.8E+04	8.3E+03	
WLK 50 with antibacterial technology	Staph aureus	2.8E+04	< 11.11	≥ 99.96%

Sample	Species	Contact time		Reduction
		0hrs	24hrs	
Reference Sample	E.coli	2.5E+04	6.1E+05	
WLK 50 with antibacterial technology (8% Regrind)	E.coli	2.5E+04	< 11.11	≥ 99.96%
Reference Sample	Staph aureus	2.8E+04	8.3E+03	
WLK 50 with antibacterial technology (8% Regrind)	Staph aureus	2.8E+04	< 11.11	≥ 99.96%

Conclusion

From the results it was seen that when incorporating antibacterial technology into the WLK 50 samples, excellent antimicrobial efficacy was achieved against both E.coli and Staph.aureus.

