



# Microbe Investigations AG

## LS20-02361

Report date: September 08, 2020

Customer:



### Index

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- Test overview and summary
- Application data
- Antimicrobial Testing management data
- Test costs information (Pro-Forma invoice)
- Annexes to the test report

#### **Microbe Investigations AG (MIS) is a spin-off company of ETH Zürich**

MIS provides microbiological testing services primarily for industrial customers assessing the characteristics of developmental products. MIS also provides a depth of expertise in fundamental aspects of microbiology gained throughout many years of world-leading research. Target customers are primarily companies working with antimicrobial treatments on textiles, plastics, and coatings.

More information: [www.microbe-investigations.com](http://www.microbe-investigations.com)



## Test report overview

General Info	Name	Contact	HeiQ KAM
Customer		-	S. Taruselli
Distributor	-	-	-
Brand owner	-	-	-
Brand label	-	Application at	Client
Reason for testing	Quality validation	Application by	Padding (dry-in-wet)
HeiQ Effects	HeiQ Viroblock	Scale	3 - bulk trial

### Test methods carried out in this report

Effect / Property	Testing standard	Test parameter
Domestic laundering	ISO 6330:2013	7N: 70°C, normal setting (cotton)
Quantitative antibacterial test (hydrophilic fabrics)	ISO 20743:2013	Bacterium: Staphylococcus aureus (ATCC 6538P)

**Test results:** Excellent - Perfect application // no adjustment on recipe or application needed

### Test summary / comments:

Both fabrics show very good antimicrobial activity beyond 30 x 70 °C washes (ISO 6330, 7N).

## Samples, finishing process and textile information

Sample	Sample description
1	CHARLOTTE VB ORIGINAL 1 CHARLOTTE VB ORIGINAL 1; NPJ03 150 g/l
2	CHARLOTTE VB ORIGINAL 2 CHARLOTTE VB ORIGINAL 2; NPJ03 200 g/l

Recipe	Sample number	
Product	1	2
Viroblock NPJ03 (17200) [g/l]	150	200
Parameters	1	2
Pick-up [%]	75	75
Drying Temp. [°C]	-	-
Drying Time [s]	-	-
Curing Air Temp. [°C]	-	-
Curing Time [s]	-	-
Substrates	1	2
Cotton [%]	50	50
Polyester [%]	50	50
Textile information	1	2
Weight [g/m <sup>2</sup> ]	180.0	180.0
Construction	WOV	WOV
Structure	-	-

Legend:

Construction process	Textile structure
WOV = Woven	

## Antimicrobial Testing

Recipe	Sample number			
Product	1		2	
Viroblock NPJ03 (17200) [g/l]	150		200	
ISO 6330 parameters	1-1	1-2	2-1	2-2
ISO 6330 7N		30		30
Drying conditions		A		A

### ISO 20743: Staphylococcus aureus (ATCC 6538P)

Control	Intial	After 18 h		
Log cfu	4.28	6.46		
Sub-Samples	1-1	1-2	2-1	2-2
Log cfu Sample (staph)	2.97	2.20	2.00	2.00
Percent reduction Sample (staph) [%]	99.97	99.99	100.00	100.00
Log reduction Sample (staph)	3.50	4.30	4.50	4.50
Activity Sample (staph)	++	++	++	++

## Test costs information (Pro-Forma invoice)

Item	Price per item	No item	Costs
LIMS license + reporting	250	1	250
ISO 20743: Staphylococcus aureus (ATCC 6538P)	150	4	600
ISO 6330 7N (cotton)	16	32	512

Total value of this report: USD 1362.-