



Microbe Investigations AG

LS20-03913

Report date: December 10, 2020

Customer:



Index

- Test overview and summary
- Application data
- Antibacterial 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



Test report overview

General Info	Name	Contact	Key Account Manager
Customer		N. Schneider	
Distributor	-	-	-
Brand owner	-	-	-
Brand label	-	Application at	Client
Reason for testing	-	Application by	Not specified
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	4G: 40°C, gentle setting (wool silk synthetics)
Quantitative antibacterial test on textiles	ISO 20743:2013	Bacterium: <i>Staphylococcus aureus</i> (ATCC 6538P)

Test summary / comments:

In the test ISO 20743 the sample "EVO 30 PK BA, white; NPJ03 10%" shows good antimicrobial activity versus *Staphylococcus aureus*, initially. After 20 home launderings the sample still shows an antimicrobial activity of above 90%

Samples, finishing process and textile information

Sample	Sample description
1	EVO 30 PK BA, white; NPJ03 10%

Recipe	Sample number
Substrates	1
Polyester [%]	100
Textile information	1
Weight [g/m2]	-
Construction	VLE
Structure	-

Legend:

<i>Construction process</i>	<i>Textile structure</i>
VLE = Nonwoven	

Antibacterial Testing

Recipe	Sample number	
ISO 6330 parameters	1-1	1-2
ISO 6330 4G		20
Drying conditions		A

ISO 20743: Staphylococcus aureus (ATCC 6538P)

Control	Intial	After 18 h
Log cfu	4.50	6.45
Sub-Samples	1-1	1-2
Log cfu Sample (staph)	2.00	5.38
Percent reduction Sample (staph) [%]	99.996	91.451
Log reduction Sample (staph)	4.50	1.10
Activity Sample (staph)	++	-

Test costs information (Pro-Forma invoice)

Item	Price per item	No item	Costs
LIMS license + reporting			
ISO 20743: Staphylococcus aureus (ATCC 6538P)			
ISO 6330 4G (delicate)			

Total value of this report: USD 718.-

Attachment 2 to Test Report FRF 190101

Summary of Test Results for Sample
 EVO 80 S2 SC, MB FO 1168 BM 4125C 15
 Washed
 fiatec-No.: FRF 190101-FW2

2. Pressure Drop [Pa]

Flow velocity [cm/s]	5	50
Delivery State	62	621
after measurement	62	647

3. Mass

Mass <small>Delivery State</small>	[g]	22,9
------------------------------------	-----	------

4. Dimensions

Cut to: 530 x 530 [mm]
 Effectiv filter media area : 500 x 500 [mm]

5. Test Results

Particle Size	Test Result	Specification
[µm]	[%]	[%]
1 - 4,7	76	≥70
>5	98,9	≥90

Referring to the particle collection efficiency the determined results indicate that the standards required from TÜV Rheinland to assemble encastings suitable for allergic persons are met.