



Microbe Investigations AG

LS21-02881

Report date: January 18, 2022

Customer: Trans Pacific Textile (M) SDN. BHD.

Distributor: Matex International Limited

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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

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Test report overview

General Info	Name	Contact	Key Account Manager
Customer	Trans Pacific Textile (M) SDN. BHD.	Z. Sutirman	M. Raibin
Distributor	Matex International Limited	D. Tan Guan Liang	-
Brand owner	-	-	-
Brand label	-	Application at	-
Reason for testing	Quality validation	Application by	Not specified
Effects	HeiQ Viroblock	Scale	3 - bulk trial

Test methods carried out in this report

Effect / Property	Testing standard	Test parameter
Quantitative antibacterial test on textiles	ISO 20743:2013	Bacterium: <i>Staphylococcus aureus</i> (ATCC 6538P)
Quantitative antiviral test on textiles	ISO 18184:2019	SARS-CoV-2 (Lineage B.1.617.2; Delta Variant)

Test results: Very good effect level

Test summary / comments:

- In test ISO 20743, the "100% Polyester: ProX fabric; NPJ03" sample showed excellent antibacterial activity against *Staphylococcus aureus*, initially and after 60 home launderings.
- In test ISO 18184, the "100% Polyester: ProX fabric; NPJ03" sample showed good antiviral activity against against *SARS-CoV-2 delta variant : Isolate hCoV-19/USA/PHC658/2021 (Lineage B.1.617.2; Delta Variant), BEI resources (NR-55611)*, after 60 home launderings.

Samples, finishing process and textile information

Sample	Sample description
1	2 ProX fabric; NPJ03

Recipe	Sample number
Substrates	1
Polyester [%]	100
Textile information	1
Weight [g/m ²]	95.0
Construction	CKN
Structure	INT

Legend:

Construction process	Textile structure
CKN = Circular Knit	INT = Interlock

Microbiology: Antibacterial Activity

Recipe	Sample number	
ISO 20743: Staphylococcus aureus (ATCC 6538P)		
Control	Initial	After contacting
Log CFU	4.69	7.15
Sub-Samples	1-1	1-2
Log CFU Sample (staph)	2.16	3.56
Percent reduction Sample (staph) [%]	99.999	99.974
Log reduction Sample (staph)	4.99	3.58
Activity Sample (staph)	++	++

Microbiology: Antiviral Activity

Recipe	Sample number
ISO 18184: SARS-CoV-2	
Sub-Samples	1-2
Infective titer test	Plaque assay
Ig(Va) (control, immediately SARS-CoV-2)	6.51
Contacting time [minutes] SARS-CoV-2 [min]	120
Ig(Vc) (sample, after contacting) SARS-CoV-2	4.41
Antiviral activity value Mv SARS-CoV-2	2.10
Percent reduction SARS-CoV-2 [%]	99.194
Activity SARS-CoV-2	Pass