chimicambiente

Test report n°: **21RP01127** dated **15/04/2021**

Dear
Parx Plastics Europe BV
Hig Goudsesingel 46 (unit 17)
3011KD Rotterdam ()

Acceptance Data

Subject of the test: **Textiles**

Transport: **Customer**

Date of arrival: **12/03/2021**   Time of arrival: **13.33**

Acceptance date: **12/03/2021**

Sample data (C)

Description: **Treated sample PA**

Sampling data

Sampling by: **Customer**

Place: **Customer location**

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follows Test report n°: **21RP01127** dated **15/04/2021**

Parameter - Specification *Method - Notes*	M.U.	Results Notes	LoQ	LoD	Test start Test end
Antiviral activity (e) ISO 18184:2019		**See Test report n° 2100036/01 of 14/04/2021**			12/03/21 14/04/21

If the sampling is not the responsibility of Chimicambiente S.r.l., the latter declines all responsibility for the information relating to sampling as provided by the Customer; the results of the tests refer exclusively to the sample as received. When these data include measurements that impact on the unit of measurement, the results expressed are obtained by processing them. The acceptance data are the responsibility of the Laboratory while the data relating to the sample are marked with a "C" if it is the responsibility of the Customer.

If the sample is unsuitable but the Customer chooses to continue anyway, the laboratory declines all responsibility for the results that could be influenced by the deviation.

LEGEND: **U.M.** = unit of measurement; **(sup)** = upper limit; **(inf)** = Lower Limit; **LoQ** = limit of quantification, is the lower concentration limit above which it is possible to obtain a quantitative measurement instrumentally; in microbiology the LoQ is theoretical in nature; **LoD** = limit of detection, it is the lower concentration limit below which the sample cannot be detected; in qualitative analyzes it represents the minimum concentration at which it is possible to determine or not the presence of an analyte; **NQ** = not quantifiable, indicates a value lower than LoQ; **NR** = not detectable, indicates a value lower than LoD; "**< x**" or "**> x**" respectively indicate a value lower or higher than the measurement range of the test, where x is the result; **N.A.** = not applicable to the test; **M.I.** = internal method.
(m): Indicates a change from the previous version of the test report.
(e): Indicates that the test/activity was performed under subcontract.

The analytical results refer exclusively to the sample under test.
Partial reproduction of this test report is not permitted without the written authorization of the laboratory.
The samples are kept in the laboratory for 2 weeks from the end of the test, unless otherwise indicated.
The records of the tests carried out are kept by the laboratory for 5 years from the issue of the test report.

IF NOT DIFFERENTLY SPECIFIED: the results of this test report are not correct for the recovery factors (R) as the recovery values fall within the tolerance indicated in the test method; the summations are calculated using the lower bound criterion (L.B.); the values (if present on the test report) reported in the "uncertainty" column refer to the expanded uncertainty with coverage factor K approximated to 2, probability level = 95%; the sampling report is identified and filed with the same sample acceptance code or with the relative order number.

The uncertainty is expressed in units of measurement of the parameter to which they relate. The coverage factor is equal to k=2 with a probability range of 95%.

Technical Director

Gioachin Dr. Carlo
Chemist
Ordine Interprov. Chimici del Veneto - Padova n° 860 SEZ. A

-- End of Test Report --

CHIMICAMBIENTE SRL – Legal and operational headquarters: Via Leonardo da Vinci, 2 – 35042 ESTE (PD)
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VISMEDERI TEXTYLE

Test report n° 2100036/01

CHIMICAMBIENTE S.R.L.
VIA LEONARDO DA VINCI, 2
35042 - ESTE (PD) - IT

Test information	
MATERIAL	Polyamide
ITEM	**Treated sample: 21RP01127** **Untreated sample: 21RP01127 Untreated**
TREATMENT	**Active principle based on zinc**
METHOD	**ISO 18184:2019 "Textiles – Determination of antiviral activity of textile products"°**
Date of receipt	15 March 2021
Samples	• Treated sample: 20 x 20 mm; • Untreated sample: 20 x 20 mm; • No sterilization as requested by the customer; • Volume of test inocululm: 200 uL.
Conservation	Room temperature
Test temperature	25°C ± 1°C
Incubation temperature	37°C ± 1°C
Viral strain	**SARS-CoV-2_COV2019 ITALY/INMI1**
Permissive host cell line	VERO E6
Contact time	2H

Calculation of antiviral activity

Antiviral activity is calculated with the following formula:

$$M_v = \lg(V_a) - \lg(V_c)$$

where

M_v is the evaluation of antiviral activity

$\lg(V_a)$ logarithm of the mean of TCID50 of the three replicates at time T0 detected on the control

$\lg(V_c)$ logarithm of the mean of TCID50 of the three replicates at time T detected on the treated sample

Log $TCID_{50}$ inoculum: 6.8

Control test					
	Average Log $TCID_{50}$	$TCID_{50}$ /1mL	Test valid if	Results	
Untreated sample	4,00	$10^{4,00}$	(Lg $TCID_{50}$ Untreated -		
Treated sample	3.83	$10^{3,83}$	Lg $TCID_{50}$ Treated) < 0.5	0.17	Valid

Test results					
	Time	Average Log $TCID_{50}$ Lg (V_a)	$TCID_{50}$ / 1 mL	M	Test valid if
Untreated sample	T0	5,58	$10^{5,58}$	/	/
	T2	4,67	$10^{4,67}$	0,92	M<1.0

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	Time	Average Log $TCID_{50}$ Lg (V_c)	$TCID_{50}/1$ mL	M_v	% reduction versus T0
Treated sample	T2	2,50	$10^{2,50}$	3,08	99,92

Antiviral efficacy	
$3.0 > M_v \geq 2.0$	Good effect
$M_v \geq 3.0$	Excellent effect

This Test Report refers only to the sample tested; the name and description of the sample are declared by the Customer.
This test report may only be reproduced in full; partial reproduction must be authorized with written approval by the Laboratory.
° Test in service (same Group).

Prato, 14 April 2021

End of test Report

The Responsible,