

TEST REPORT
DENEY RAPORU

**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**
Esenyurt Firuzköy Bulvarı No:29 34325 Avcılar
İstanbul/ TÜRKİYE



AB-0583-T

20044232
İNG

12-20

Customer name: SCHRODER P+H GMBH
Address: KREUZSTRASSE 58 42277 WUPPERTAL-GERMANY
Buyer name: -
Contact Person: DR THOMAS SCHRODER
Order No: -
Article No: 250 cm of woven fabric
Name and identity of test item: White cloth mask(Claimed to be; cream white)
The date of receipt of test item: 24.11.2020
Re-submitted/re-confirmation date: -
Date of test: 24.11.2020-10.12.2020
Remarks: -
Sampling: The results given in this report belong to the received sample by vendor.
End-Use: -
Care Label: -
Number of pages of the report: 5

The Turkish Accreditation Agency (TÜRKAK) is signatory to the multilateral agreements of the European co-operation for the Accreditation (EA) and of the International Laboratory Accreditation (ILAC) for the Mutual recognition of test reports.
EKOTEKS LABORATUVAR ve GÖZETİM HİZMETLERİ A.Ş. accredited by TÜRKAK under registration number [AB-0583-T] for ISO 17025:2017 as test laboratory.
The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report

Seal

Date

10.12.2020

Customer Representative
Zahide TAPAN

Head of Testing Laboratory
Sevim A. RAZAK
10.12.2020

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REQUIRED TESTS	RESULT	COMMENTS
MICROBIOLOGICAL TESTS		
Bacterial Filtration Efficiency Original	P	
Bacterial Filtration Efficiency After 5 Washes	P	
Microbial Cleanliness(Bioburden) Original	P	
Microbial Cleanliness(Bioburden) After 5 Washes	P	
P: Pass F: Fail R: Refer to retailer technologist. Test results were evaluated according to TSE K 599: 2020 limit values		

REMARK: Original samples are kept for 3 months and all technical records are kept for 5 years unless otherwise specified. If requested, measurement uncertainty will be reported. But unless otherwise specified, measurement uncertainty is not considered while stating compliance with specification or limit values. The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95 %. The declaration of conformity was given in accordance with the Simple Acceptance Decision Rule. Tests marked (*) in this report are not included in the accreditation schedule.



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TEST RESULTS

BACTERIAL FILTRATION EFFICIENCY (BFE)

Test Metod: EN 14683:2019+AC:2019 Medical Face Masks, Requirements and Test Methods

A specimen of the mask material is clamped between a impactor and an aerosol chamber. An aerosol of *Staphylococcus aureus* is introduced into the aerosol chamber and drawn through the mask material and the impactor under vacuum. The bacterial filtration efficiency of the mask is given by the number of colony forming units passing through the medical face mask material expressed as a percentage of the number of colony forming units present in the challenge aerosol.

ORIGINAL

Test Flow Rate	28,3 L/min
Test Flow Time	2 minute
Sample Sizes	5 pieces
Microorganism	<i>Staphylococcus aureus</i> ATCC 6538
Bacterial concentration (cfu/ ml)	5×10^5 cfu/ ml
incubation conditions	24 hour, $35^\circ\text{C} \pm 2^\circ\text{C}$
Positive control sample average of number of Bacteria (C)	$2,34 \times 10^3$ cfu/ ml
Mean particle size (MPS)	2.9 μm

RESULTS			Requirement BFE (%)
Number of Test Sample	Test Sample (T) Number of Bacteria (cfu/ml)	Bacterial Filtration Efficiency (% B)	
1	200	%91.5	≥90
2	195	%91.7	
3	215	%90.8	
4	187	%92.0	
5	209	%91.1	

cfu: Colony-forming unit

$B = (C - T) / C \times 100$

%B: Bacterial Filtration Efficiency

C: is the mean of the total plate counts for the two positive control runs

T: is the total plate count for the test specimen

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TEST RESULTS

BACTERIAL FILTRATION EFFICIENCY (BFE)

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AFTER WASH

Test Flow Rate	28,3 L/min
Test Flow Time	2 minute
Sample Sizes	5 pieces mask
Microorganism	<i>Staphylococcus aureus</i> ATCC 6538
Washing Cycle	5
Washing Method	6N@60°C Line Dry/ (TS EN ISO 6330). 2012
Bacterial concentration (cfu/ ml)	5x10 ⁵ cfu/ ml
incubation conditions	24 hour, 35°C ± 2°C
Positive control sample average of number of Bacteria (C)	2,34x10 ³ cfu/ ml
Mean particle size (MPS)	2.9 µm

RESULTS			Requirement BFE (%)
Number of Test Sample	Test Sample (T) Number of Bacteria (cfu/ml)	Bacterial Filtration Efficiency (% B)	
1	230	%90.2	≥90
2	226	%90.3	
3	220	%90.6	
4	234	%90.0	
5	219	%90.6	

cfu: Colony-forming unit

$$B = (C - T) / C \times 100$$

%B: Bacterial Filtration Efficiency

C: is the mean of the total plate counts for the two positive control runs

T: is the total plate count for the test specimen

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TEST RESULTS

MICROBIAL CLEANLINESS (Bioburden)

Test Metod: Ref: EN ISO 11737-1:2018

The sample is put in extraciton liquid after shaking well, inoculated on the agar.
After incubation at 30 ± 1 ° C for 72 hours, growth microorganisms are counted on the agar.

ORIGINAL

	<u>RESULTS</u>	<u>REQUIREMENT</u>
Microbial cleanliness (cfu/g)	25 cfu/g	≤ 30 cfu/g

*cfu= Colony forming unit.

MICROBIAL CLEANLINESS (Bioburden)

Test Metod: Ref: EN ISO 11737-1:2018

The sample is put in extraciton liquid after shaking well, inoculated on the agar.
After incubation at 30 ± 1 ° C for 72 hours, growth microorganisms are counted on the agar.

(After 5 washes, 6N@60°C Line Dry) / TS EN ISO 6330:2012

AFTER WASH

	<u>RESULTS</u>	<u>REQUIREMENT</u>
Microbial cleanliness (cfu/g)	12 cfu/g	≤ 30 cfu/g

*cfu= Colony forming unit.