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

# TEST REPORT
*DENEY RAPORU*

| |
|---|
| 20016022 |
| 06-20 |

| | |
|---|---|
| ***Customer name:*** | COTON BLANC |
| ***Address:*** | ZAC CAMP. DESSERT NORD 132 MPASSE DES MARSOUINS 83480 PUGET SUR ARGENS |
| ***Buyer name:*** | - |
| ***Contact Person:*** | MME AIMEE ODEN |
| ***Order No:*** | - |
| ***Article No:*** | - |
| ***Name and identity of test item:*** | Blue mask. |
| ***The date of receipt of test item:*** | 21.05.2020 |
| ***Re-submitted/re-confirmation date:*** | - |
| ***Date of test:*** | 21.05.2020-02.06.2020 |
| ***Remarks:*** | - |
| ***Sampling:*** | The results given in this report belong to the received sample by vendor. |
| ***End-Use:*** | - |
| ***Care Label:*** | Not specified. |
| ***Number of pages of the report:*** | 4 |

TESTED BY EKOTEKS TEST EDİLMİŞTİR

| ***Seal*** | ***Date*** | ***Customer Representative*** | ***Head of Testing Laboratory*** |
|---|---|---|---|
| | 02.06.2020 | Neslihan BÖLÜK | Sevim A. RAZAK |



Gen.f136-2/03

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| REQUIRED TESTS | RESULT | COMMENTS |
|---|---|---|
| **MICROBIOLOGICAL TESTS** | | |
| Bacterial Filtration Efficiency-BFE[1] | P | **Type I** |
| Microbial Cleanliness(Bioburden) [2] | P | |
| **PHYSICAL PROPERTIES** | | |
| Breathability(Differential Pressure) [3] | P | |

P: Pass
F: Fail
R: Refer to retailer technologist.
[1]Test results were evaluated according to EN 14683:2019+AC:2019 Annex-B/Table- 1)limit values
[2]Test results were evaluated according to EN ISO 11737-1:2018 limit values
[3]Test results were evaluated according to EN 14683:2019+AC:2019 Annex -C/Table- 1 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 %. Tests marked (*) in this report are not included in the accreditation schedule.

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# TEST RESULT

## Medical face masks - Requirements and test methods EN 14683:2019+AC:2019 (TS EN 14683+AC:2019)

### BACTERIAL FILTRATION EFFICIENCY (BFE)

**Test Metodu:** EN 14683:2019+AC :2019 (TS EN 14683+AC:2019) EK-B (*)
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.

| | |
|---|---|
| **Test Flow Rate** | 28,3 L/min |
| **Total Test Flow Time** | 2 minute |
| **Sample Sizes** | 5 pieces mask |
| **Test Alanı** | 4.9 $cm^2$ (5 replicas) |
| **Test Condition** | (21 ± 5) °C and (85 ± 5) % relative humidity, 4 hours |
| **Test Microorganism** | *Staphylococcus aureus* ATCC 6538 |
| **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)** | $2x10^3$ cfu/ ml |
| **Mean particle size (MPS)** | 3.0 µm |

| RESULTS | | | |
|---|---|---|---|
| **Number of Test Sample** | **Test Sample (T) Number of Bacteria (cfu)** | **Bacterial Filtration Efficiency ( % B )** | **Requirement BFE (%)** |
| **1** | 61 | %97.0 | **Type I ≥95** |
| **2** | 69 | %96.6 | **Type II ≥98** |
| **3** | 71 | %96.5 | |
| **4** | 75 | %96.3 | |
| **5** | 80 | %96.0 | |

*cfu: Colony-forming unit*
B= ( C-T ) / C x 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 RESULT

## MICROBIAL CLEANLINESS (Bioburden)

**Test Metod:** EN 14683:2019+AC :2019 (TS EN 14683+AC:2019) EK-D (*)
EN ISO 11737-1:2018 /TS EN ISO 11737-1 :2018 (*)

5 sample were taken.The sample is weighted and put in extraction liquid after shaking well (250 rpm,5 min), inoculated on the suitable agar.
The plates are incubated for 3 days at 30 ± 1 ° C for 72 hours, and 7 days at (20 to 25) °C for TSA and SDA plates respectively.Total microoragnisms counts are calculated.

| | RESULTS | REQUIREMENT |
|---|---|---|
| **Microbial cleanliness (cfu/g)** | 12 cfu/g | ≤30 cfu/g<br>Type I and Type II mask |

*cfu= Colony forming unit.

## BREATHABILITY (Differential Pressure)

**Test Metodu:** EN 14683:2019+AC :2019 (TS EN 14683+AC:2019) EK-C (*)

Test Condition (21 ± 5) °C ve (85 ± 5) % relative humidity, 4 hrs
Test area is 25 mm in diameter , 5 different sample was taken
Adjusted airflow is 8 l/min.The differential pressure is read directly using a differential pressure manometer .

| SAMPLE | DIFFERENTIAL PRESSURE RESULT | REQUIREMENT |
|---|---|---|
| 1 | 16.8 Pa/cm$^2$ | < 40 Pa/cm$^2$<br>Type I ve Type II mask |
| 2 | 16.8 Pa/cm$^2$ | |
| 3 | 19.8 Pa/cm$^2$ | |
| 4 | 16.8 Pa/cm$^2$ | |
| 5 | 18.3 Pa/cm$^2$ | |
| Average Result | 17.7 Pa/cm$^2$ | |