

Analytical Report Nr.

AR-20-YL-003279-01

Sample code Nr.

560-2020-00003441

Date

11/06/2020

CONCLUSION:

| TEST PROPERTY | PASS | FAIL | REMARKS |
|--|------|------|--------------|
| Bacterial filtration efficiency EN 14683 Annex B | | | |
| A - Mask | | | REFER RESULT |

Remark: Test has been performed as per application request

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COMPONENT LIST:

| COMPONENT ID | COMPONENT NAME | MATERIAL DESCRIPTION | COLOR | REMARKS |
|--------------|----------------|----------------------|-------|---------|
| CUST 01 | A - Mask | Mask | Black | --- |

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| MASKS TESTING | CAS No. | RESULTS | UNC. | LOQ | GUIDELINES |
|---------------|---------|---------|------|-----|------------|
|---------------|---------|---------|------|-----|------------|

Analyses on:A - Mask

▷ **Bacterial filtration efficiency**

Analysis Ending Date: 11/06/2020

EN 14683 Annex B

Bacterial Filtration Efficiency (BFE)

69.88 %

-

Complete test data reported at Annex.

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Signed for and on behalf of Eurofins Textile Testing Spain:

Report electronically validated by

Axel Ferrando

Physical-Mechanical Lab Manager

EXPLANATORY NOTE

- ◆ Test no accreditation
 - Test is subcontracted within Eurofins group and is accredited
 - Test is subcontracted within Eurofins group and is not accredited
 - Test is subcontracted outside Eurofins group and is accredited
 - Test is subcontracted outside Eurofins group and is not accredited
- N/A = Not Applicable

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End Of Report

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IN VITRO DETERMINATION OF BACTERIAL FILTRATION EFFICIENCY (BFE)

Standard: EN 14683: 2019+AC: 2019 Annex B

Reference and batch number: 560-2020-00003441 / Batch number not provided

Number of test specimens: 5

Dimension of the test specimen: 240 mm x 135 mm

Tested area size: 49 cm²

Size of test specimen was facing towards the challenge aerosol: Inner

Flow rate during testing: 28,3 l/min

Negative Control Plate Counts

| | STAGE | | | | | | MEAN |
|------------------------|-------|---|----|----|----|----|------|
| | 1 | 2 | 3* | 4* | 5* | 6* | |
| Negative Control (CFU) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Number of colonies adjusted with positive-hole correction table

Positive Controls Plate Counts

| | STAGE | | | | | | TOTAL CFU |
|--------------------------|-------|------|------|------|------|------|-----------|
| | 1 | 2 | 3* | 4* | 5* | 6* | |
| Size of particle (µm) | 7,00 | 4,70 | 3,30 | 2,10 | 1,10 | 0,65 | |
| Positive Control 1 (CFU) | 178 | 375 | 1023 | 606 | 516 | 281 | 2979 |
| Positive Control 2 (CFU) | 139 | 362 | 998 | 639 | 440 | 311 | 2889 |

*Number of colonies adjusted with positive-hole correction table

Mean of the total plate counts of the two positive controls (CFU): 2934

Mean Particle Size (MPS)

| | MPS |
|-------------------------|------|
| Positive Control 1 (µm) | 2,82 |
| Positive Control 2 (µm) | 2,77 |
| Mean (µm) | 2,79 |

Test specimens Plate Counts

| | STAGE | | | | | | TOTAL CFU |
|------------|-------|----|-----|-----|-----|-----|-----------|
| | 1 | 2 | 3* | 4* | 5* | 6* | |
| Specimen 1 | 18 | 44 | 125 | 175 | 225 | 265 | 852 |
| Specimen 2 | 25 | 56 | 134 | 186 | 239 | 277 | 917 |
| Specimen 3 | 21 | 51 | 129 | 182 | 236 | 260 | 879 |
| Specimen 4 | 17 | 48 | 127 | 179 | 236 | 281 | 888 |
| Specimen 5 | 20 | 45 | 136 | 180 | 228 | 273 | 882 |

*Number of colonies adjusted with positive-hole correction table

Bacterial Filtration Efficiency Calculation (BFE)

| TEST | BFE (%) |
|----------------|--------------|
| 1 | 70,96 |
| 2 | 68,75 |
| 3 | 70,04 |
| 4 | 69,73 |
| 5 | 69,94 |
| Average | 69,88 |
| SD | 1,13 |

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

C = Plate count average of both positive control runs

T = Total plate count of the sample