

**Marco le Poole**  
**Drukwerkdeal**  
**Keulenstraat 4**  
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**The Netherlands**

| Your notice of | Your reference                              | Date       |
|----------------|---------------------------------------------|------------|
| 14-12-2020     | Drukwerkdeal promotioneel masker 14.12.2020 | 15-12-2020 |

## Analysis Report 2020-18

*Accreditation AMIBM for these tests pending*

### Required tests

EN 14683 (2019) +  
AC (2019)

EN 14683 (2019) +  
AC (2019)

Conformity  
assessment –  
Requirements for  
certifying  
community masks

EN 14683 (2019) -  
annex B (2019)

EN 14683 (2019) -  
annex C (2019)

NEN-spec 1-  
2:2020-11-0

Bacterial filtration  
efficiency

Breathability  
(differential pressure)

Visual and manual  
inspection

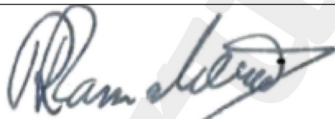
### SOP used

AMIBM SOP 2.0;  
Date 29.6.2020

AMIBM SOP 1.0;  
Date 29.6.2020

AMIBM SOP 1.0  
Date 12.12.2020

| Identification number | Information given by the client                | Date of receipt |
|-----------------------|------------------------------------------------|-----------------|
| 2020-18               | Drukwerkdeal promotioneel masker<br>14.12.2020 | 14-12-2020      |



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KvK nr.: 50169181

### **Bacterial filtration efficiency**

|                                 |                                                                               |
|---------------------------------|-------------------------------------------------------------------------------|
| Date of ending the test         | 15.12.2020                                                                    |
| Standard used                   | EN 14683 (2019) - annex B (2019)                                              |
| Product standard                | EN 14683 (2019) + AC (2019)                                                   |
| SOP version used                | AMIBM SOP 2.0; Date 29.6.2020                                                 |
| Reference                       | Drukwerkdeal promotioneel masker 14.12.2020                                   |
| Number of tested masks          | 5                                                                             |
| BFE area tested                 | $\pm 49 \text{ cm}^2$                                                         |
| Mask conditioning               | $\geq 4 \text{ h}$ at $21 \pm 5^\circ \text{ C}$ and $85 \pm 5\% \text{ RH}$  |
| Mask/bacteria contact side      | Inner side                                                                    |
| Challenge bacterial strain used | <i>Staphylococcus aureus</i> ATCC6538                                         |
| Bacterial challenge per test    | 1700-3000 CFU                                                                 |
| Total test time                 | 1 min. challenge delivery + 1 min. without challenge<br>(continuous air flow) |
| Flow rate                       | 28.3 l/min                                                                    |
| Positive control                | Tests performed without filter in air stream                                  |
| Negative control                | Test performed without bacterial challenge                                    |
| Deviation from Standard         | NO                                                                            |



## Results

B = Bacterial filtration efficiency (%)

C = Mean of the total plate counts for the positive control runs

T = Total count for the tested mask specimen

$$B = \frac{(C - T)}{C} \times 100$$

| Mask # | B (%) |
|--------|-------|
| 1      | 84.0  |
| 2      | 81.2  |
| 3      | 81.2  |
| 4      | 79.3  |
| 5      | 81.7  |

\*no detected colony on any TSA sampler plates

**Average B: 81,5%**

Mean particle size of the bacterial aerosol challenge: 2,7 µm

## Controls

Mean positive controls 1751 CFU

Negative control <1 CFU

This test report is valid for products used in relation to the current Covid-19 health crisis and for products which are not entering the regular distribution channels. Cfr Commission Recommendation (EU) 2020/403 of 13 March 2020 on conformity assessment and market surveillance procedures within the context of the COVID-19 threat.

**Conclusion:** The Bacterial Filter Efficiency is 81,5 % ≥ 70%. **pass** for community masks.

### **Breathability (differential pressure)**

|                          |                                                |
|--------------------------|------------------------------------------------|
| Date of testing          | 14.12.2020                                     |
| Standard used            | EN 14683 (2019) - annex C (2019)               |
| Product standard         | EN 14683 (2019) + AC (2019)                    |
| SOP version used         | AMIBM SOP 1.0; Date 29.6.2020                  |
| Reference                | Drukwerkdeal promotioneel masker<br>14.12.2020 |
| Number of tested masks   | 5                                              |
| Number of areas per mask | 5 (see Figure 1)                               |
| Dimensions of the areas  | Discs with diameters of 2.5 cm                 |
| Surface areas            | 4.9 cm <sup>2</sup>                            |
| Flow rate                | 8 l/min                                        |
| Mask conditioning        | ≥4 h at 21 ± 5° C and 85 ± 5% RH               |
| Direction of air flow    | From inside of the mask to the outside         |
| Deviation from Standard  | NO                                             |

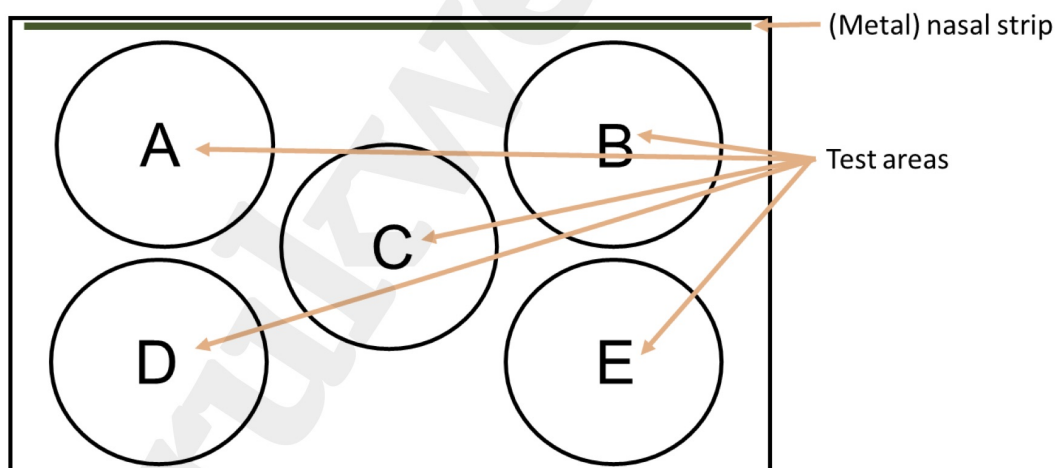


Figure 1: Distribution of the test areas in the mask specimen.

## Results

| Sample 1:            | <b>Drukwerkdeal promotioneel masker</b> |        |        |             | Date   | 14.12.2020 |
|----------------------|-----------------------------------------|--------|--------|-------------|--------|------------|
| Pa                   | Mask 1                                  | Mask 2 | Mask 3 | Mask 4      | Mask 5 |            |
| Section A            | 175                                     | 151    | 178    | 116         | 163    |            |
| Section B            | 177                                     | 182    | 176    | 138         | 157    |            |
| Section C            | 166                                     | 163    | 173    | 133         | 155    |            |
| Section D            | 159                                     | 155    | 172    | 153         | 148    |            |
| Section E            | 171                                     | 154    | 155    | 144         | 157    |            |
| Pa/cm2               | Mask 1                                  | Mask 2 | Mask 3 | Mask 4      | Mask 5 |            |
| Section A            | 35.7                                    | 30.8   | 36.3   | 23.7        | 33.3   |            |
| Section B            | 36.1                                    | 37.1   | 35.9   | 28.2        | 32.0   |            |
| Section C            | 33.9                                    | 33.3   | 35.3   | 27.1        | 31.6   |            |
| Section D            | 32.4                                    | 31.6   | 35.1   | 31.2        | 30.2   |            |
| Section E            | 34.9                                    | 31.4   | 31.6   | 29.4        | 32.0   |            |
| Mittelwert           | 34.6                                    | 32.9   | 34.9   | 27.9        | 31.8   |            |
| STD                  | 1.5                                     | 2.6    | 1.9    | 2.8         | 1.1    |            |
| Average $\Delta P$ : |                                         |        |        | 32.4 Pa/cm2 |        |            |

**Conclusion:** Breathability =  $32,4 \text{ Pa/cm}^2 \leq 40 \text{ Pa/cm}^2$ : pass for community masks.