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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			SOP used
EN 14683 (2019) + AC (2019)	EN 14683 (2019) - annex B (2019)	Bacterial filtration efficiency	AMIBM SOP 2.0; Date 29.6.2020
EN 14683 (2019) + AC (2019)	EN 14683 (2019) - annex C (2019)	Breathability (differential pressure)	AMIBM SOP 1.0; Date 29.6.2020
Conformity assessment – Requirements for certifying community masks	NEN-spec 1-2:2020-11-0	Visual and manual inspection	AMIBM SOP 1.0 Date 12.12.2020

Identification number	Information given by the client	Date of receipt
2020-18	Drukwerkdeal promotioneel masker 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	±49 cm^2
Mask conditioning	≥4 h at 21 ± 5° C and 85 ± 5% RH
Mask/bacteria contact side	Inner side
Challenge bacterial strain used	*Staphylococcus aureus* ATCC6538
Bacterial challenge per test	1700-3000 CFU
Total test time	1 min. challenge delivery + 1 min. without challenge (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

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

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 of13 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 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^2
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

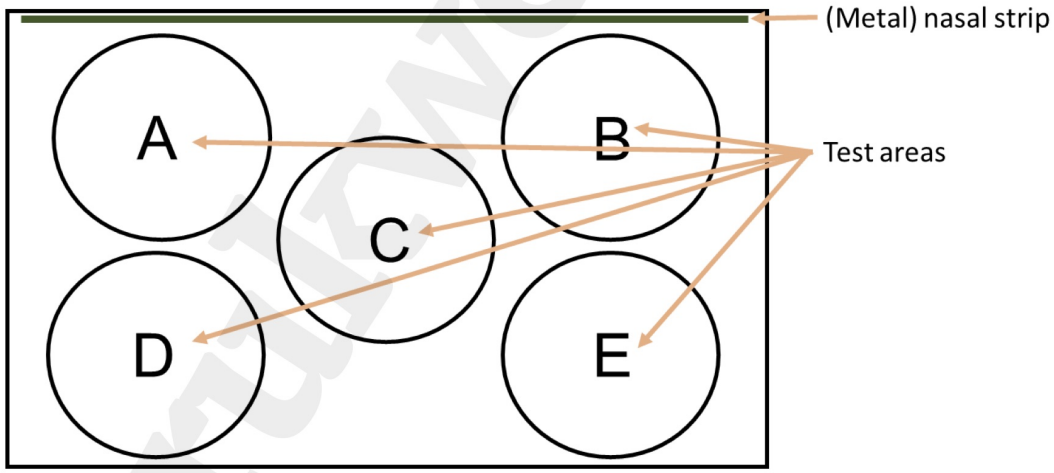

Figure 1: Distribution of the test areas in the mask specimen.

Results

Sample 1:	Drukwerkdeal promotioneel masker			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 ΔP :	**32.4**	**Pa/cm2**

Conclusion: Breathability = 32,4 Pa/cm^2 ≤ 40Pa/cm^2: **pass** for community masks.

Manual and Visual inspection

Inspection checklist for testing community masks according to NCS 1-2									
	Drukwerkdeal promotioneel masker, 14.12.2020	Rating							
		Tester 1 (Ramakers)		Tester 2 (Bortesi)		Tester 3 (Besen)			
	Mandatory property	**Mask 1**	**Mask 2**	**Mask 1**	**Mask 2**	**Mask 1**	**Mask 2**	**Average score**	**Pass/fail**
1	No sharp seams	Pass	Pass	Pass	Pass	Pass	Pass		**Pass**
2	No sharp ridges	Pass	Pass	Pass	Pass	Pass	Pass		**Pass**
3	No staples used	Pass	Pass	Pass	Pass	Pass	Pass		**Pass**
4	No exhalation valve	Pass	Pass	Pass	Pass	Pass	Pass		**Pass**
5	Elastic band is strong enough to hold the mask in place without making it too tight or uncomfortable	8	8	9	9	6	6	**7.7**	**Pass**
6	Fixation allows easy putting on and off	8	8	8	8	7	7	**7.7**	**Pass**
7	Fixation is strong enough to hold the mask in place even when moving the head. Test by putting the mask on and off five times.	8	8	7	7	6	6	**7.0**	**Pass**
8	Mask can be pulled tight so that it is smooth and without folds at the edge	8	8	8	8	7	7	**7.7**	**Pass**
9	Visual defects	Pass	Pass	Pass	Pass	Pass	Pass		**Pass**
10	Packaging has no irregularities, damage and is of appropriate size	6	6	6	6	6	6	**6.0**	**Pass**
	Additional mandatory property for masks intended for children								
11	Mask has head fastening behind the ears without adjustable elements and without fastening that has to be tied								
Target group: adults	Fitting criteria fulfilled: mask dimensions are suitable for the specified target group, no fitting-hampering faults found	Pass	Pass	Pass	Pass	Pass	Pass		Pass
						Overal assessment adult mask:			**Pass**
						Overall assessment children mask			

Conclusion: all scores are “pass” or ≥ 5,5: **pass** for manual and visual inspection for community masks.