Testing Laboratory
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REPORT No CL/WBO/88/2020

Respiratory protective device – Filtering half mask to protect against particles model: CARE 1986V (class FFP3 NR) Test of filtering half masks FFP3 NR

(Product / object of research)

Issue date: 2020-10-23

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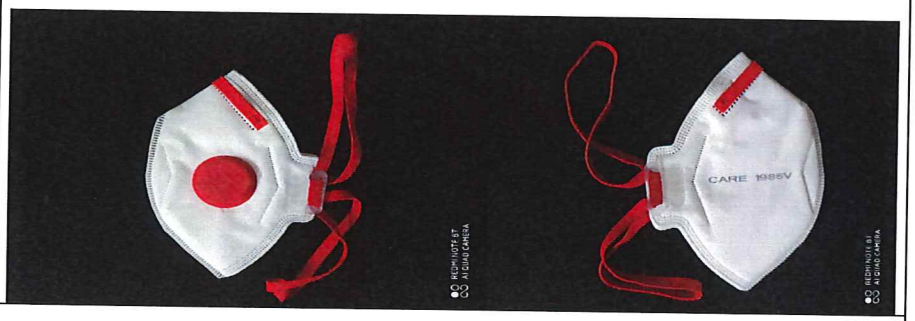
Tests Report no. CL/WBO/88/2020

1. Name and address of the applicant:	
2. Location of performed testing:	Testing Laboratory Polski Rejestr Statków S.A. al. Gen. Józefa Hallera 126, 80-416 Gdańsk, Poland
3. Object/product description and identification of testing:	CONTRACT NO. 856/2020
3.1 Name of objects/products:	Respiratory protective device – Filtering half mask to protect against particles model: CARE 1986V 
3.2 Manufacturer:	
3.4 Number of objects/products/samples:	PRS Laboratory numbers: 001/NACL/856/2020, 002/NACL/856/2020, 003/NACL/856/2020, 004/NACL/856/2020, 005/NACL/856/2020, 006/NACL/856/2020, 007/NACL/856/2020, 008/NACL/856/2020, 009/NACL/856/2020, 001/BR/856/2020, 002/BR/856/2020, 003/BR/856/2020, 004/BR/856/2020, 005/BR/856/2020, 006/BR/856/2020, 007/BR/856/2020, 008/BR/856/2020, 009/BR/856/2020, 010/BR/856/2020, 011/BR/856/2020, 012/BR/856/2020
4. Person / company ordering and financing the tests	
5. Form and date of the order tests	Email: miroslaw.klimek@prs.pl 2020-10-19
6. Objects/products/samples date of receipt and place for testing:	2020-10-19, Gdańsk Testing Laboratory

Tests Report no. CL/WBO/88/2020

7. Date of performed testing:	2020-10-19 - 2020-10-23
8. Laboratory equipment used for testing:	Mask breathing resistance tester BK-ZL-A Particle filter efficiency tester BK-GLXL-A Face mask mechanical strength tester ZX 8030 Face mask simulated wearing treatment Temperature conditioning; temperature recorder TESTO 177-T4 01719437/908, heating chamber PRS - 452 127 419, freezing chamber PRS - 801 227 414, Weather station No. 1/2013,
9. Testing instruction/procedure number/standard:	Test methodology in accordance with the PN-EN 149+A1:2010 standard and laboratory test procedure: PCLB-8 Procedura badań masek EN 149 edycja 1 z dnia 2020-08-13
10. Scope of test:	• penetration of sodium chloride method of test in accordance with EN 13274-7:2008 requirements in accordance with EN 149:2001 + A1:2009 • breathing resistance method of test in accordance with EN 13274-3:2001 requirements in accordance with EN 149:2001 + A1:2009 Before tests according to requirements of the standard, filtering half masks were submitted to: • mechanical strength test according to 8.3.3 of EN 149:2001 + A1:2009 • temperature conditioning according to 8.3.2 of EN 149:2001 + A1:2009 • simulated wearing treatment according to 8.3.1 of EN 149:2001 + A1:2009 • flow conditioning according to 8.3.4 of EN 149:2001 + A1:2009
11. Declaration	The test results concern only the behavior of the tested product samples under specific test conditions.
12. Report NO	CL/WBO/88/2020
13. Environmental factors for penetration test	Temperature – 21,5 °C
14. Name and surname of the Guide	Wojciech Pytlak

15. Test results:

15.1 Penetration of filter material according to EN 149 point 8.11 (Penetration of NaCl in accordance with EN 13274-7 :2008 [%] Flow rate 95 l/min)

Table 1 – test results of Penetration of filter material for CARE 1986V

Requirements in accordance with EN 149:2001 + A1:2009 Maximum penetration of test aerosol [%] Flow rate 95 l/min FFP1 max. 20 [%] FFP2 max. 6 [%] FFP3 max. 1 [%]				
No.	**Sample No.**	**Condition**	**Penetration [%]**	**Test result Positive/Negative**
1	001/ NaCl /856/2020	AR	0,653	Positive
2	002/ NaCl /856/2020	AR	0,848	Positive
3	003/ NaCl /856/2020	AR	0,956	Positive
4	004/ NaCl /856/2020	SW	0,772	Positive
5	005/ NaCl /856/2020	SW	0,195	Positive
6	006/ NaCl /856/2020	SW	0,270	Positive
7	007/ NaCl /856/2020	TC, MS	0,064	Positive
8	008/ NaCl /856/2020	TC, MS	0,098	Positive
9	009/ NaCl /856/2020	TC, MS	0,568	Positive

AR - As received, SW – Simulated wearing treatment, TC – Temperature conditioning, MS – Mechanical Strength, FC – Flow conditioning.

15.2 Breathing Resistance according to EN 149 point 8.9 (method of the test according to EN 13274-3:2001)

Table 2 – test results of inhalation resistance in constant flow measurements for CARE 1986V

Requirements in accordance with EN 149:2001 + A1:2009 Inhalation resistance [Pa]							
No.	**Sample No.**	**Condition**	**Flow rate 0,5 dm^3s^{-1} (30l /min)**	**Requirements in accordance with EN 149:2001 + A1:2009 (30l/min)**	**Flow rate 1,6 dm^3s^{-1} (95l /min)**	**Requirements in accordance with EN 149:2001 + A1:2009 (95l/min)**	**Test result Positive/Negative**
1	001/BR/856/2020	AR	49,9	FFP1 ≤ 60 [Pa] FFP2 ≤ 70 [Pa] FFP3 ≤ 100 [Pa]	179,5	FFP1 ≤ 210 [Pa] FFP2 ≤ 240 [Pa] FFP3 ≤ 300 [Pa]	Positive
2	002/BR/856/2020	AR	46,1		174,7		Positive
3	003/BR/856/2020	AR	46,5		177,3		Positive
4	004/BR/856/2020	SW	40,4		186,2		Positive
5	005/BR/856/2020	SW	53,1		173,0		Positive
6	006/BR/856/2020	SW	52,5		179,1		Positive
7	007/BR/856/2020	TC	57,3		198,7		Positive
8	008/BR/856/2020	TC	45,6		202,8		Positive
9	009/BR/856/2020	TC	51,6		191,5		Positive
10	010/BR/856/2020	FC	57,1		177,5		Positive
11	011/BR/856/2020	FC	51,5		192,7		Positive
12	012/BR/856/2020	FC	47,2		196,6		Positive

AR - As received, SW – Simulated wearing treatment, TC – Temperature conditioning, MS – Mechanical Strength, FC – Flow conditioning.

Tests Report no. CL/WBO/88/2020

Table 3 – test results of exhalation resistance in constant flow measurements for CARE 1986V

No.	Sample No.	Condition	Flow rate 2,7dm^{3}s^{-1} (160l /min)	The dummy head position	Requirements in accordance with EN 149:2001 + A1:2009	Test result Positive/Negative
1	001/BR/856/2020	AR	147,2	1. Facing directly ahead	FFP1 ≤ 300 [Pa] FFP2 ≤ 300 [Pa] FFP3 ≤ 300 [Pa]	Positive
			174,2	2. Facing vertically upwards		
			168,9	3. Facing vertically downwards		
			159,7	4. Lying on the right		
			152,7	5. Lying on the left		
2	002/BR/856/2020	AR	151,7	1. Facing directly ahead		Positive
			152,4	2. Facing vertically upwards		
			155,9	3. Facing vertically downwards		
			166,2	4. Lying on the right		
			152,2	5. Lying on the left		
3	003/BR/856/2020	AR	137,4	1. Facing directly ahead		Positive
			156,9	2. Facing vertically upwards		
			153,9	3. Facing vertically downwards		
			152,2	4. Lying on the right		
			141,2	5. Lying on the left		
4	004/BR/856/2020	SW	177,9	1. Facing directly ahead		Positive
			177,7	2. Facing vertically upwards		
			155,9	3. Facing vertically downwards		
			135,4	4. Lying on the right		
			149,4	5. Lying on the left		
5	005/BR/856/2020	SW	150,2	1. Facing directly ahead		Positive
			143,9	2. Facing vertically upwards		
			130,2	3. Facing vertically downwards		
			131,4	4. Lying on the right		
			141,2	5. Lying on the left		
6	006/BR/856/2020	SW	142,7	1. Facing directly ahead		Positive
			156,4	2. Facing vertically upwards		
			147,7	3. Facing vertically downwards		
			125,9	4. Lying on the right		
			153,7	5. Lying on the left		
7	007/BR/856/2020	TC	155,4	1. Facing directly ahead		Positive
			152,4	2. Facing vertically upwards		
			145,4	3. Facing vertically downwards		
			167,9	4. Lying on the right		
			163,7	5. Lying on the left		
8	008/BR/856/2020	TC	152,2	1. Facing directly ahead		Positive
			178,4	2. Facing vertically upwards		
			164,9	3. Facing vertically downwards		
			159,7	4. Lying on the right		
			152,7	5. Lying on the left		
9	009/BR/856/2020	TC	149,9	1. Facing directly ahead		Positive
			143,4	2. Facing vertically upwards		
			150,7	3. Facing vertically downwards		
			159,4	4. Lying on the right		
			170,7	5. Lying on the left		

Tests Report no. CL/WBO/88/2020

10	010/BR/856/2020	FC	146,9	1. Facing directly ahead	FFP1 ≤ 300 [Pa] FFP2 ≤ 300 [Pa] FFP3 ≤ 300 [Pa]	Positive
			143,7	2. Facing vertically upwards		
			142,7	3. Facing vertically downwards		
			138,2	4. Lying on the right		
			155,4	5. Lying on the left		
11	011/BR/856/2020	FC	168,7	1. Facing directly ahead		Positive
			185,2	2. Facing vertically upwards		
			154,7	3. Facing vertically downwards		
			162,4	4. Lying on the right		
			157,9	5. Lying on the left		
12	012/BR/856/2020	FC	158,9	1. Facing directly ahead		Positive
			163,9	2. Facing vertically upwards		
			158,4	3. Facing vertically downwards		
			172,2	4. Lying on the right		
			164,7	5. Lying on the left		

AR - As received, SW – Simulated wearing treatment, TC – Temperature conditioning, MS – Mechanical Strength, FC – Flow conditioning.

16. **The name of the representative of the Notified Body in whose presence the tests were carried out.**
Mirosław Klimek- Products and Persons Certification Bureau Expert

17. **Annexes:**
No Annexes

18. **Report written by:** **Wojciech Pytlak**

(podpis)

19. **Report authorized by:** **Władysław Bogdanowicz**

POLSKI REJESTR STATKÓW S.A.
Manager
of Testing Laboratory
Władysław Bogdanowicz

(podpis)

END OF REPORT

C.C.:

1. Copy no 1 – Client,
2. ~~Copy no 2 – Testing Laboratory PRS,~~