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Sample ID: COLOUR:MULTI COLOUR MASKS

	TEST	METHOD	SPECIMEN	RESULT
*	Respiratory protective devices - Filtering half masks to protect against particles - Requirements, testing, marking	EN 149:2001 +A1:2009	FFP3 MASK AP-1602	PASS



Seal



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Environment

The requirements and standards apply to equipment intended for use in

X	Residential (domestic) environment
X	Commercial and light-industrial environment
X	Industrial environment
X	Medical environment

EN 149:2001 +A1:2009 Inspection Test Report

This European Standard specifies minimum requirements for filtering half masks as respiratory protective devices to protect against particles except for escape purposes.

TEST RESULTS**SAMPLE : FFP3 MASK AP-1602**

EN 149	Standards	Test	Results	General Evaluation
7.2	Rated values and tolerances	21 °C (± 1 °C) All test performed, temperature limits are the same.		
7.4	Packaging	After visual inspection, it is packaged to be protected from mechanical damage and contamination before use.		
7.5	Material	Three particle filter half masks were tested. As a result of visual inspection, a) 24 hours in a dry atmosphere (70 ± 3) ° C, b) 24 hours at (-30 ± 3) ° C There was no mechanical damage to the protective part or ties. No distortion in the mask. The mask does not pose any danger to the user. and it does not bother.	PASS	
7.6	Cleaning and disinfecting	The mask is resistant to cleaning and disinfection agents and processes specified by the manufacturer. General Performance a) Comfort of the head strap, b) Safety of the connections, c) Field of view, d) Other comments of the user reported on request.		

		<p>Walking Experiment</p> <p>There is no discomfort and damage at the end of a 10 min walk test with a speed of 6 km / h.</p> <p>After cleaning and disinfection, the same results were obtained with the values in 7.9.2.</p>					
7.7	Practical performance	Comfort of the head strap	Appropriate				PASS
		Safety of the connections	Appropriate				
		Field of view	Appropriate				
<7.9.1	Leakage	The particle filtering half mask can be used by the wearer to protect with high probability against the potential hazard to be expected.	Appropriate				PASS
		For particle filtering half masks fitted in accordance with the manufacturer's information, at least 46 out of the 50 individual exercise results (i.e. 10 subjects x 5 exercises) for total inward leakage shall be not greater than	Appropriate				
		25 % for FFP1 11 % for FFP2 5 % for FFP3	Walk	Head	Talk	4.7	
			4.4	4.8	5.0		
		at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage shall be not greater than	Appropriate				
22 % for FFP1 8 % for FFP2 2 % for FFP3	4.7						
7.9.2	Penetration of filter material	Sodium chloride test, 95 l/min	0.9 %				PASS
		Paraffin oil test 95 l/min	0.7 %				
7.10	Compatibility with skin	Materials that may come into contact with the wearer's skin shall not be known to be likely to cause irritation or any other adverse effect to health.	Appropriate				PASS
7.11	Flammability	< 5 sc	< 5 sc				PASS

7.12	Carbon dioxide content of the inhalation hair	The carbon dioxide content (dead volume) of the inhaled air should not exceed an average of 1.0% (by volume)	% 0,1 <			PASS
7.16	Breathing resistance	Respiratory resistances are applied to half-masks with and without valve particle filter. These resistors must provide the values in Table 2.	Inhalation	Inhalation	Exhalation	PASS
			30 L/min	95 L/min	160 L/min	
			0.8 mbar	2.4 mbar	3.0 mbar	
7.17	Clogging	Half masks with particle filter without valve Respiration and exhalation resistances at 95 L / min continuous flow after clogging,	3.2 mbar			PASS
8.3.2	Temperature Conditioning	24 hours in dry atmosphere (70 ± 3) ° C 24 hours at (-30 ± 3) ° C	No performance loss.			PASS
8.4.3	Simulated wearing treatment	Walking test	Appropriate			PASS
		Creep test	Appropriate			
		Basket experiment	Appropriate			

ANNEX
TABLE 1

Specimen No	Subject	Walk (%)	Head Side (%)	Head Up and Down (%)	Talk (%)	Walk (%)	Avg (%)	Result	
Taken directly to the test process									
#1	S.Ö	4.4	4.8	4.8	5.0	4.4	4.6	PASS	
#2	D.A	4.4	4.8	4.8	5.0	4.4	4.6		
#3	M.Ö	4.4	4.7	4.8	4.9	4.4	4.6		
#4	N.K	4.3	4.8	4.8	5.0	4.4	4.6		
#5	A.E	4.4	4.8	4.7	5.0	4.5	4.6		
*5 of the samples were directly tested, the other 5 samples were tested after conditioning. Temperature conditioning ; Expose the particle filtering half masks to the following thermal cycle: -for 24 h to a dry atmosphere of (70 ± 3) °C -for 24 h to a temperature of (-30 ± 3) °C (see 8.3.2)									
#6	A.A	4.4	4.8	4.8	5.0	4.4	4.6		
#7	H.K	4.4	4.8	4.7	5.0	4.4	4.6		
#8	M.K	4.3	4.8	4.8	5.0	4.5	4.6		
#9	H.S	4.4	4.8	4.8	4.9	4.4	4.6		
#10	C.K	4.4	4.7	4.8	5.0	4.4	4.6		
Avg		4.3	4.8	5.2	5.0	4.4	-		

Facial Dimension 7.9.1

Subject	Face Length	Face Width	Face Depth	Mouth Width
S.Ö	119	128	110	56
D.A	120	126	112	59
M.K	120	130	106	53
N.L	119	128	105	60
A.E	118	129	110	55
A.A	115	125	113	58
H.K	103	123	111	63
M.P	110	128	106	54
H.S	116	130	109	62
C.K	118	140	105	60

TABLE 2

Aerosol	Specimen No	Conditioning	Penetration (%)	Avg (%)	Result
Sodium chloride test, 95 l/min	#11	A.R.	0.9	0.9	PASS
	#12	A.R.	0.9		
	#13	A.R.	0.9		
Sodium chloride test, 95 l/min	#14	M.S + A.T.	0.9	0.9	PASS
	#15	M.S + A.T.	0.9		
	#16	M.S + A.T.	0.9		
Sodium chloride test, 95 l/min	#17	S.W.T.	0.9	0.9	PASS
	#18	S.W.T.	0.9		
	#19	S.W.T.	0.9		
Paraffin oil test 95 l/min	#20	A.R.	0.7	0.7	PASS
	#21	A.R.	0.7		
	#22	A.R.	0.7		
Paraffin oil test 95 l/min	#23	M.S + A.T.	0.7	0.7	PASS
	#24	M.S + A.T.	0.7		
	#25	M.S + A.T.	0.7		
Paraffin oil test 95 l/min	#26	S.W.T.	0.7	0.7	PASS
	#27	S.W.T.	0.7		
	#28	S.W.T.	0.7		

*SWT = Simulated wearing treatment

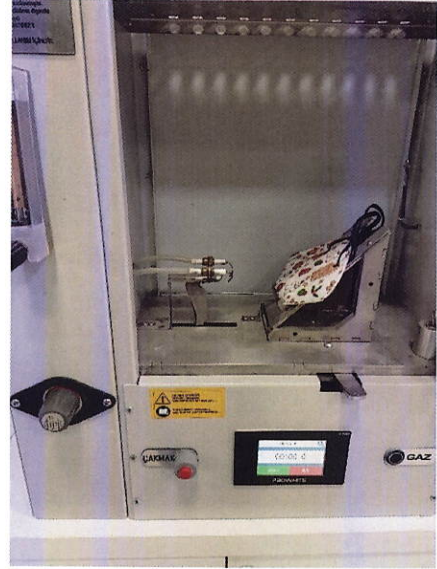
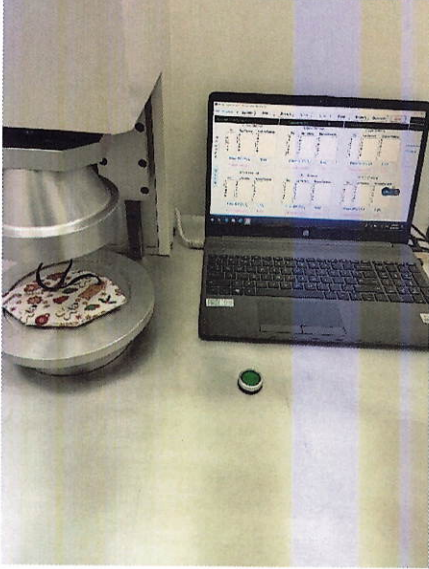
AT = After temperature

AR = As received

TABLE 3

Specimen	Conditioning	Flow Rate			Result
		Inhalation 30 L/min	Inhalation 95 L/min	Exhalation 160 L/min	
#29	A.R.	0.8	2.4	3.0	PASS
#30	A.R.	0.8	2.4	3.0	PASS
#31	A.R.	0.8	2.4	2.9	PASS
#32	A.T.	0.8	2.4	3.0	PASS
#33	A.T.	0.7	2.3	3.0	PASS
#34	A.T.	0.8	2.4	3.0	PASS
#35	S.W.T.	0.8	2.4	2.9	PASS
#36	S.W.T.	0.7	2.4	3.0	PASS
#37	S.W.T.	0.8	2.3	3.0	PASS
Avg		0.8	2.4	3.0	PASS

MASK IMAGES UNDER TEST



*****End of Report*****