

# PPE Technical Paper Report

Prepared For :	FuJian DaHong Industry & Development Co.,Ltd. DaHong Building,Electronic Information Park, High-Tech Development Zone,ShiShi City,FuJian,China
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Trade Mark :	
Product Name :	Mask
Model(s) :	PGT-0095, PGT-0095S, PGT-0096



Technician by:


Date: 24 March , 2020

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<b>PPE Technical Paper Report</b> <b>EN 149: 2001+A1:2009</b> <b>Respiratory Protective Devices - Filtering Half Masks to Protect Against Particles</b> <b>- Requirements, Testing, Marking</b>	
Reference No. ....	: TB2020.QWP00028
Contents .....	: 13 pages
<b>Client</b>	
Name .....	: Fujian DaHong Industry & Development Co.,Ltd.
Address .....	: DaHong Building,Electronic Information Park, High-Tech Development Zone,ShiShi City,Fujian,China
<b>Test specification</b>	
Standard .....	: <b>EN 149: 2001+A1:2009</b>
Test procedure .....	: CE- PPE
Procedure deviation .....	: N.A.
Non-standard test method .....	: N.A.
<b>Test item</b>	
Description .....	: Mask
Trademark .....	: 
Model and/or type reference .....	: PGT-0095, PGT-0095S, PGT-0096
Manufacturer .....	: Fujian DaHong Industry & Development Co.,Ltd.
Address .....	: DaHong Building,Electronic Information Park, High-Tech Development Zone,ShiShi City,Fujian,China
Classification .....	: <b>FFP2</b>

**Test case verdicts**

Test case does not apply to the test object..... : N(A.)

Test item does meet the requirement ..... : P(ass)

Test item does not meet the requirement..... : F(ail)

**General remarks**

**Do not copy this technical file in its entirety.**

"(see remark #)" refers to a remark appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

**Remark :**

The EUT complies with the standard EN 149 requirement.

Copy of marking plate:



Note: because of the sameness of labels, only above label is listed

EN 149: 2001+A1:2009			
Clause	Requirement – Test	Result - Remark	Verdict
<b>5</b>	<b>Classification</b>		P
	Particle filtering half masks are classified according to their filtering efficiency and their maximum total inward leakage. There are three classes of devices:	Complied with standard, se appened.	P
	- FFP1	>80% filter effeciency	P
	- FFP2	>94% filter effeciency	P
	- FFP3		N
<b>6</b>	Particle filtering half masks meeting the requirements of this European Standard. Year of publication, classification	“D” clearly marked	P
<b>7</b>	<b>Requirements</b>		P
<b>7.1</b>	All test all test samples shall meet the requirements	Complied see bellow	P
<b>7.2</b>	Nomial values and tolerances		P
	Unless otherwise specified,the values stated in this European Standard are experature limits	Actual using value is clear	P
<b>7.3</b>	Visual inspection		P
	The visual inspection shall also include the marking and the information supplied by the manufacturer.	Clear marking is provided, see sample body	P
<b>7.4</b>	Packaging		P
	offered for sale packaged in such a way that they are protected against mechanical damage and contamination before use.	Distinct design and warning are made on packaging, see sample body	P
<b>7.5</b>	Material		P
	Materials suitable to withstand handling and wear over the period. Any material from the filter media released shall not constitute a hazard or nuisance for the wearer.	Comfortable wearing, when releasing no hazards is produced	P
<b>7.6</b>	Cleaning and disinfecting		N
	The materials used shall withstand the cleaning and disinfecting	Single-use equipment	N
<b>7.7</b>	Practical performance		P
	The particle filtering half mask shall undergo practical performance tests under realistic conditions.	Complied, see bellow test	P
<b>7.8</b>	Finish of parts	Soft equipment	N
	come into contact with the wearer shall have no sharp edges or burrs		N
<b>7.9</b>	<b>Leakage</b>		P
<b>7.9.1</b>	Total inward leakage		P
	The laboratory tests shall wearer to protect with	Enough safe condition is	P

EN 149: 2001+A1:2009			
Clause	Requirement – Test	Result - Remark	Verdict
	high probability against the potential hazard to be expected.	provide	
	Exercise results for total inward leakage shall be not greater than 25% for FFP1 11% for FFP2 5% for FFP3	FFP2, not exceed 11%	P
<b>7.9.2</b>	Penetration of filter material		P
	meet the requirements of Table 2.	Complied, see below test	P
<b>7.10</b>	Compatibility with skin		P
	the wearer's skin shall not be known to be likely to cause irritation or any other adverse effect to health.	Have no irritation or adverse effect to skin and health	P
<b>7.11</b>	Flammability	Have no such hazard	P
	The material used shall not present a danger for the wearer and shall not be of highly flammable nature.		P
<b>7.12</b>	Carbon dioxide content of the inhalation air		N
	The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume).	<1.0%	P
<b>7.13</b>	Head harness		
	Head harness shall be designed can be donned and removed easily and adjustable or self-adjusting and sufficiently robust to hold the particle	The designing is considered	P
<b>7.14</b>	Field of vision		P
	Field of vision is acceptable in practical performance tests.	Clear field of vision when wearing	P
<b>7.15</b>	<b>Exhalation valve(s)</b>		P
	A particle filtering half mask may have one or more exhalation valve(s) and shall function correctly in all orientations.	One valve provided	N
	Exhalation valve is provided it shall be protected against or be resistant to dirt and mechanical damage and may be shrouded or may include any other device	Clearly function	P
	Exhalation valve(s) shall continue to operate correctly after a continuous exhalation flow of 300 l/min over a period of 30 s.	Complied, see below	P
	Exhalation valve housing is attached to the faceblank, and withstand axially a tensile force of 10 N applied for 10 s.	Enough strong	P
<b>7.16</b>	<b>Breathing resistance</b>		P
	Breathing resistances apply to valved and valveless and shall meet the requirements	Complied, see below test	P

EN 149: 2001+A1:2009			
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<b>7.17</b>	<b>Clogging</b>		N
<b>7.17.1</b>	General	single-use device	N
	For single-use devices clogging test is an optional test.		N
	Devices designed to be resistant to clogging, shown by a slow increase		N
	The specified breathing resistances shall not be exceeded before the required dust load of 833 mg-h/m <sup>3</sup> .		N
<b>7.17.2</b>	Breathing resistance		N
<b>7.17.2.1</b>	Valved particle filtering half masks		N
<b>7.17.2.2</b>	Valveless particle filtering half masks		N
	After clogging the inhalation and exhalation resistances shall not exceed ¾ FFP1: 3 mbar ¾ FFP2: 4 mbar ¾ FFP3: 5 mbar		N
	at 95 l/min continuous flow.		N
<b>7.17.3</b>	Penetration of filter materia		N
	All types claimed to meet the clogging requirement shall also meet the penetration requirements given in 7.9.2 after the treatment.		N
<b>7.18</b>	Demountable parts	No any such part	N
	All demountable parts (if fitted) shall be readily connected and secured, where possible by hand.		
<b>9</b>	<b>Marking</b>		--
<b>9.1</b>	<b>Packaging</b>		P
	The following information shall be clearly and durably marked on the smallest commercially available packaging or legible through it if the packaging is transparent.	Complied, clearly marked	P
<b>9.1.1</b>	The name, trademark or other means of identification of the manufacturer or supplier.	See user manual	P
<b>9.1.2</b>	Type-identifying marking.		P
<b>9.1.3</b>	Classification: FFP1, FFP2, FFP3.	FFP2	P
<b>9.1.4</b>	The number and year of publication of this European Standard.	See above	P
<b>9.1.5</b>	At least the year of end of shelf life.	2 years	P
<b>9.1.6</b>	The sentence 'see information supplied by the manufacturer', at least in the official language(s) of the country of destination, or by using the pictogram as shown in Figure 12b.	English used	

EN 149: 2001+A1:2009			
Clause	Requirement – Test	Result - Remark	Verdict
9.1.7	The manufacturer's recommended conditions of storage (at least the temperature and humidity) or equivalent pictogram, as shown in Figures 12c and 12d.	See user manual	P
9.1.8	The packaging of those particle filtering half masks passing the dolomite clogging test shall be additionally marked with the letter "D".		P
9.2	<b>Particle filtering half mask</b>		P
	Particle filtering half masks		P
	complying with this European Standard shall be clearly and durably marked with the following:		P
9.2.1	The name, trademark or other means of identification of the manufacturer or supplier.	Qingdao Weili Protective Articles Co.,Ltd.	P
9.2.2	Type-identifying marking.		P
9.2.3	The number and year of publication of this European Standard.	See above	P
9.2.4	The symbols FFP1, FFP2 or FFP3 according to class.	FFP2	P
9.2.5	If appropriate the letter D (dolomite) in accordance with clogging performance. This letter shall follow the class designation (see 9.2.4).		N
9.2.6	Sub-assemblies and components with considerable bearing on safety shall be marked so that they can be identified.		N
10	<b>Information to be supplied by the manufacturer</b>		P
10.1	Information supplied by the manufacturer shall be at least in the official language(s) of the country of destination.	English	P
10.3	The information supplied by the manufacturer shall contain all information necessary for trained and qualified persons on	See user manual	P
	¾ application/limitations;		
	¾ the meaning of any colour coding;		
	¾ checks prior to use;		
	¾ donning, fitting;		
	¾ use;		
	¾ maintenance (e.g. cleaning, disinfecting), if applicable;	See user manual	P
	¾ storage;		
	¾ the meaning of any symbols/pictograms used of the equipment.		



EN 149: 2001+A1:2009			
Clause	Requirement – Test	Result - Remark	Verdict
10.4	The information shall be clear and comprehensible. If helpful, illustrations, part numbers, marking shall be added.	Clearly considered	P
10.5	Warning shall be given against problems likely to be encountered, for example: $\frac{3}{4}$ fit of particle filtering half mask (check prior to use); $\frac{3}{4}$ it is unlikely that the requirements for leakage will be achieved if facial hair passes under the face seal; $\frac{3}{4}$ air quality (contaminants, oxygen deficiency); $\frac{3}{4}$ use of equipment in explosive atmosphere.	See user manual	P
10.6	The information shall provide recommendations as to when the particle filtering half mask shall be discarded.		P

**Attachments: test table**

<b>Table 8.5</b>	<b>Leakage test</b>					<b>P</b>
Models Item	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	
NaCl flow rate (L/min)	90	105	105	110	120	
NaCl aerosol (um)	0.3	0.3	0.3	0.3	0.3	
Pumping flow rate (L/min)	30	30	30	30	30	
NaCl concentration before mask (Mg/m <sup>3</sup> )	2	2	2	2	2	
NaCl concentration after mask (Mg/m <sup>3</sup> )	0.32	0.27	0.29	0.30	0.23	

<b>Table 8.9.1</b>	<b>Breathing resistance test</b>					<b>P</b>
Models Item	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	
Inhalation gas velocity (L/min)	30	30	30	30	30	
Maximum resistance (mbar)	0.39	0.40	0.37	0.35	0.45	
<b>Note: Maximum permitted resistance &lt; 0.6 mbar</b>						

<b>Table 8.9.2</b>		<b>Exhalation resistance test</b>				<b>P</b>
Item	Models	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
	Inhalation gas velocity (L/min)		95	95	95	95
Maximum resistance (mbar)		1.80	1.72	1.82	1.69	1.75
Note: Maximum permitted resistance < 2.1 mbar						

<b>Table 8.9.3</b>		<b>Breathing resistance test</b>				<b>P</b>
Item	Models	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
	Exhalation (L/min)		160	160	160	160
Maximum resistance (mbar)		1.72	1.76	1.77	1.77	1.78
Note: Maximum permitted resistance < 3.0 mbar						

**Attachments: real photos**



**Photo 1**



**Photo 2**



Photo 3



Photo 4

\*\*\*\*\* END OF \*\*\*\*\*