# greensley

# medical

### Personal protection equipment

### **KN95 PM2.5**

rev. 11







Code	Description	
KN95-CE	KN95 disposable face mask	WARNING: we have been advised that the ECM certification body is not authorized to issue CE certificates. The producer is applying for a CE certificate with a properly authorized body.
	Composition	4 layers: 40 gsm non-vowen + 50 gsm melt-blown fabric + 60 gsm cotton + 20 gsm non-vowen
	Packing	Individually packed units   50 units per bag   20 bags or 1000 units per carton   9 kg per carton 68*32*61 cm
	Storage temperature range	-20°C to +30°C
	Storage relative humidity range	< 80%
	Shelf life	Three years from manufacturing date
	HSCODE	6307900000
	Standard compliance	KN95 (GB2626-2006) equivalent to FFP2 (EN 149-2001) – see below

greensley limited 1/16

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### **CERTIFICATION EQUIVALENCE**

Based on this comparison, it is reasonable to consider China KN95, AS/NZ P2, Korea 1st Class, and Japan DS FFRs as "equivalent" to US NIOSH N95 and European FFP2 respirators, for filtering non-oil-based particles such as those resulting from wildfires, PM 2.5 air pollution, volcanic eruptions, or bioaerosols (e.g. viruses). However, prior to selecting a respirator, users should consult their local respiratory protection regulations and requirements or check with their local public health authorities for selection guidance.

Certification/ Class (Standard)	N95 (NIOSH-42C FR84)	FFP2 (EN 149-2001)	KN95 (GB2626-20 06)	P2 (AS/NZ 1716:2012)	Korea 1 <sup>st</sup> Class (KMOEL - 2017-64)	DS (Japan JMHLW- Notification 214, 2018)
Filter performance – (must be ≥ X% efficient)	≥ 95%	≥94%	≥ 95%	≥94%	≥ 94%	≥ 95%
Test agent	NaCl	NaCl and paraffin oil	NaCl	NaCl	NaCl and paraffin oil	NaCl
Flow rate	85 L/min	95 L/min	85 L/min	95 L/min	95 L/min	85 L/min
Total inward leakage (TIL)* – tested on human subjects each performing exercises	N/A	≤ 8% leakage (arithmetic mean)	≤ 8% leakage (arithmetic mean)	≤ 8% leakage (individual and arithmetic mean)	≤ 8% leakage (arithmetic mean)	Inward Leakage measured and included in User Instructions
Inhalation resistance – max pressure drop	≤ 343 Pa	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min) ≤ 500 Pa (clogging)	≤ 350 Pa	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min)	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min)	≤ 70 Pa (w/valve) ≤ 50 Pa (no valve)
Flow rate	85 L/min	Varied – see above	85 L/min	Varied – see above	Varied – see above	40 L/min
Exhalation resistance - max pressure drop	≤ 245 Pa	≤ 300 Pa	≤ 250 Pa	≤ 120 Pa	≤ 300 Pa	≤ 70 Pa (w/valve) ≤ 50 Pa (no valve)
Flow rate	85 L/min	160 L/min	85 L/min	85 L/min	160 L/min	40 L/min
Exhalation valve leakage requirement	Leak rate ≤ 30 mL/min	N/A	Depressurizatio n to 0 Pa ≥ 20 sec	Leak rate ≤ 30 mL/min	visual inspection after 300 L/min for 30 sec	Depressurizatio n to 0 Pa ≥ 15 sec
Force applied	-245 Pa	N/A	-1180 Pa	-250 Pa	N/A	-1,470 Pa
CO <sub>2</sub> clearance requirement	N/A	≤ 1%	≤ 1%	≤ 1%	≤ 1%	≤ 1%

<sup>\*</sup>Japan JMHLW-Notification 214 requires an Inward Leakage test rather than a TIL test.

Source: 3M Personal Safety Division, technical bullettin "Comparison of FFP2, KN95, and N95 and Other Filtering Facepiece Respirator Classes" January 2020, Revision 2 – http://multimedia.3m.com

### **PACKAGING**



(a) = product



(b) = individual packing of (a)



(c) = 50 items of (b) bag



f (b) bag (d) = 20 bags of (c) – total 1000 units of (b)

## MANUFACTURER'S CERTIFICATES









Particle filtering half masks are classified according to their filtering efficiency and their maximum total inward leakage. There are three classes of devices: FFP1, FFP2 and FFP3.  The profection provided by an FFP2 - or FFP3 - device includes that provided by the device of lower class or classes.  Designation Particle filtering half masks meeting the requirements to this European Standard shall be device of lower class or classes.  Particle filtering half masks meeting the requirements to this European Standard shall be deviced in the following manner:  Particle filtering half masks EU19 are of publication classification, on the where or is an option for a non-le-un-able particle filtering half mask and mandatory for re-useable particle filtering half mask shall be subject to a tolegance of ± 5 % Unless otherwise specified the manufacturer.  Packaging Particle filtering half masks shall be offered for sale packaged in such a way that they are protected against mechanical damage and contamination before use.  Schema at Material Buthship half mask is designed to be used.  Cleaning and disinfecting agents and procedures to be specified by the manufacturer.  Practical performance  The particle filtering half mask is designed to be used.  Cleaning and disinfecting agents and procedures to be specified by the manufacturer.	1		No: XMT0202001253L	Y/PP
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before use.    Description			Now Wash	1
Materials used shall be suitable to withstand handling and wear over the period for which the particle filtering half mask is designed to be used.  Cleaning and disinfecting  If the particle filtering half mask is designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer.*		before use.	田	E
handling and wear over the period for which the particle filtering half mask is designed to be used.  Cleaning and disinfecting  If the particle filtering half mask is designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer.*	<b>市時</b> 中用品		唐山市防护用品有限公司	1
particle filtering half mask is designed to be used.  Cleaning and disinfecting  If the particle filtering half mask is designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer.*	/		A THE THE PARTY AND A STATE OF THE PARTY AND A	
7.6 Cleaning and disinfecting  If the particle filtering half mask is designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer.*	Y		E M Day	
re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer.*  2.7 Practical performance	7.6		/	
cleaning and disinfecting agents and procedures to be specified by the manufacturer.*  2.7 Practical performance			/	
be specified by the manufacturer.*  7 Practical performance			P	1
7.7 Practical performance -		be specified by the manufacturer."	1 1/2	1
The socials file is a belf seed, shall an devel as effect	7.7	Practical performance	,	1
performance tests under realistic conditions.		The particle filtering half mask shall undergo practical	/P	3

1		No: XMT0202001253LY/PF
市防护用品	本形base general tests anys 协会中国的强化的合作的 the equipment for imperfections that cannot be determined by the tests described elsewhere in this standard.	唐山市防护用品有限公司
7.8	Finish of parts	/
	Parts of the device likely to come into contact with the wearer shall have no sharp edges or burns.	P
7.9	Leakage	
7.9.1	Total inward leakage  The laboratory tests shall indicate that the particle filtering half mask can be used by the wearer to protect with high probability against the potential hazard to be expected.	indicated P
7.9.2	Penetration of filter material	
7.10	A The penetration of the filter of the perticle filtering half mask shall meet the requirements of Table 1 patibility with skin Materials triat may come into contact with the wearer? Skin shall not be known to be likely to cause irritation or any other adverse effect to health.	<b>地域指統即</b> 和原公司 P
7.11	Flammability	-/
	The material used shall not present a danger for the	P
7.12	wearer and shall not be of highly flammable nature.  Carl on dioxide content of the inhalation air.  The carpon dioxide content of the inhalation air.  (dead space) shall not exceed an average of 1,0 %  (by violume).	吏用。
7.13	Head harness	
市防护用品 7.14 7.15	市 形象 head harness shall be designed so that the particle filtering half mask can be donned and removed easily.  Field of vision  The field of vision is acceptable if determined so in practical performance tests  Exhalation valve(s)	<b>丰无效</b>
	A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations	P
7.16	Breathing resistance	10月前
	The breathing resistances apply to valved and valveless particle filtering half masks and shall meet the requirements of Table 2.	requirements of able 2.
7月2月 7.17.1	有版Glogging 属山市防护用品有限公司 General	康山市防护用品有限公司等过
	!For single shift use devices, the clogging test is an optional test. For re-usable devices the test is mandatory."	P
7.17.2	Breathing resistance	
7.17.2.1	Valved particle fiftering half masks After clogging the inhalation resistances shall not	. \
	exceed FFP1: 4 mbar FFP2: 5 mbar FFP3: 7 mbar	P

		No: XMT0202001253LY/PPE
74700	. U februar and als filteria ball — barrer	
山田田野県高	有限alveless particle filtering 計算作用器解吸公司 After clogging the inhalation and exhalation	唐山市防护用品有限公司 -
	resistances shall not exceed	
	FFP1: 3 mbar	
°	FFP2: 4 mbar	P
	FFP3: 5 mbar	
1000000000	at 95 I/min continuous flow.	
7.17.3	Penetration of filter material	X
	All types (valved and valveless) of particle filtering	
	half masks claimed to meet the clogging requirement shalf also meet the requirements given in 7.9.2, for	P
	the Penetration test according to EN 13274-7, after	
	the clogging treatment.	
7.18	Demountable parts	
山市防护用品	有 All demountable part原(If fiftetty)的局面包含adily	唐山市防护用品有限公司。P
- A	connected and secured, where possible by hand.	
10/1	Tes ing General	
	If no special measuring devices and methods are	
	specified, commonly used devices and methods	P .
	shall be used.	
8.2	Visual inspection	
	The visual inspection is carried out where	
	appropriate by the test house prior to laboratory or practical performance tests.	75 HH / L
8.3	Conditioning	THE !
8.3.1	Simulated wearing treatment	
	Conditioning by simulated wearing treatment shall be	P
山市防护用品	有限論關ed out by the follewingsphores有限公司	唐山市防护用品有限公司
8.3.2	Temperature conditioning	. /
-	Expose the particle intering half masks to the following thermal cycle	<b>土</b> 干 ÷ 左
	a) for 24 h to a dry stresphere of (70 ± 3) ° C;	王 十一 公打
1	b) for 24 h to a remperature of (30 ± 3) ° C;	モノレメメ
8.3.3	Mechanical strength	1 2 - 1 2 4
0.0.0	Conditioning shall be done in accordance with EN	- X
	143.	P
8.3.4	Flow conditioning	市里市
	A total of 3 valved particle filtering half masks shall	in accordance with
1	be tested, one as received and two temperature conditioned in accordance with 8.3.2.	8.3.2.
8.4	Practical performance	一一一一
山市原東州用品	有限General 唐山市防护用品有限公司	唐山市防护用品有限公司
7	A total of 2 particle filtering half masks shall be	John Marie
/	tested: both as received.	信公司
8.4.2	Walking test	
	The subjects wearing normal working clothes and	
	wearing the particle filtering half mask shall walk at a regular rate of 6 km/h on a level course. The test	P
	shall be continuous, without removal of the particle	P V
	filtering half mask, for a period of 10 min.	
8.4.3	Work simulation test	
	The particle filtering half mask shall be tested under	within a total
	conditions which can be expected during normal	working time of 20

			/
\		No: XMT020200	1253LY/PPE
市防护用品有	Ruger During this test the fellowing activities shall be	唐山市防护用品有限公	281
/ /	carried out in simulation of the practical use of the		
/ ` `	particle filtering half mask. The test shall be		
0.5	completed within a total working time of 20 min.	/	
8.5 8.5.1	Leakage General test procedure	/	1.
8.5.1.1	Total inward leakage	<del>/                                    </del>	-
0.0.1.1	A total of 10 test specimens shall be tested: 5 as	1.000	
	received and 5 after temperature conditioning in	in	P/
	accordance with 8,3.2.	accordance with 8.3.2.	19/
		0,3,2.	
8.5.1.2	Test equipment		
\ z	The test atmosphere shall preferably enter the top of		
the photos and the	the enclosure through a flow distributor, and be	Marketon n em	N 499
印防护用品有	at a minimum flow rate of 0.12 m/s. The	唐山市防护用品有限公	(a)
N. T.	concentration of the test agent inside the effective		- P
13	working yolume shall be checked to be		111
, リ <sub>ゝ</sub>	homogeneous. The flow rate should be measured	$\mathbf{H}$	
	close to the subject's head.	/ • • • •	100
8.5.1.3	Test procedure		- /
	Ask the test subjects to read the manufacturer's fitting information and if more than one size of		X
	particle filtering half mask is manufactured, ask the		/
	test subject to select the size deemed by him to be		/P
	the nost appropriate. If necessary the test supervisor	J H	/ P
	shall show the test subjects how to it the particle	~ 13/	
\ /	filtering half mask correctly in accordance with the		
市防护用品有	withing information. 海山市防护用品有限公司 Method	唐山市防护用品有限公	2司
8.5.211	Principle		4 4
	The subject wearing the particle filtering half mask under lest walks on a treadmill over which is an	# 7	T
$ \square$	under jest walks on a treadmill over which is an	土ってく	JA A
13	enclosure		
8.5.2.2	Test equipment		/
8.5.2.2.1	Aerosol generator The NaCl aerosol shall be generated from a 2 %		
	solution of reagent grade NaCl in distilled water. An		
	atomizer equivalent to the type described should be	、商品	4/1
	used. This requires an air flow rate of 100 l/min at a	AND IN THE	195
1	pressure of 7 bar. The atomizer and its housing shall	N. W.	-Br
1	be fitted into a duct through which a constant flow of		田田
市防护用品有	air is maintained. It may be necessary to heat or dehumidify the air in order to obtain complete drying	唐山市防护用品有限公	TE E
	of the aerosol particles.	10 17.8	XX/
8.5.2.2.2	Test agent	E W	-
	The mean NaCl concentration within the enclosure		
	shall be (8 ± 4) mg/m3 and the variation throughout	/:	
	the effective working volume shall be not more than	r.	Р
	10 %. The particle size distribution shall be 0,02 ym		-
	to 2 µ m equivalent aerodynamic diameter with a	L	
	mass median diameter of 0,6 μm.		
8.5.2.2.3	Flame photometer		/-
	A flame photometer shall be used to measure the	1	Р
1			



1		No: XMT0202001253LY/PP
	த் நூழைகை sary to dilute the sample with pleasair.	唐山市防护用品有限公司
8.5.2.2.7		
/	The enclosure aerosol concentration is monitored	
1	during the tests using a separate sampling system, to avoid contamination of the particle filtering half	P
	mask sampling lines. It is preferable to use a	/   \
	separate flame photometer for this purpose.	
8.5.2.2.8	Pressure detection probe	- 1
	A second probe is fitted near to the sample probe	P/
0.5.0.0	and is connected to the pressure sensor.	× //
8.5.2.3	Expression of results The leakage P shall be calculated from	1
1	measurements made over the last 100 s of each of	
1	the exercise periods to avoid carry over of results	
市防护用品	有域吸引 one exercise to in B 和特殊用品有限公司	唐山市防护用品有限公司 P
AA	PO TEN INVENTOR	
1		
17	where 7	
2	C1 is the challenge concentration	4 - 7
1000	C2 is the measured mean concentration in the	
	breathing zone of the test subject	
	tIN is the total duration of inhalation	· /
8.6	tEX is the total duration of exhalation	
0.0	A total of four particle filtering half masks shall be	<del>                                      </del>
X	tested two in the state as received and two after	ir accordance with P
	temperature conditioning in accordance with 8.3.2.	63.2
87	Carbon dioxide content of the inhalation air	唐山市防护用品有限公司
//	A total of 3 particle filtering half masks shall be tested: all 3 as received.	P
8.8	Strength of attachment of exhaultion valve housing	+
0.0	A total of three particle litering-holf-masks shull be	TY 12
-	tested one as received one temperature	土 ノI、XX
	conditioned in accordance with 8.3.2 and one after	1 / 0 / /
0.0	the test described for mechanical strength in EN 143	
8.9	Breathing Resistance Test samples and fixture	- /
8.9.1.1	Valveless particle filtering half masks	出用人
0.0.111	A total of 9 "valveless particle filtering" half masks	10000000000000000000000000000000000000
1	shall be tested:	A SERVICE AND A
1	3 as received, 3 after temperature conditioning in	油
市防护用品	accordance with 8.3.2 and 3 after the test for	唐山市防护用品有限公司
-	Sittulated Wearing III accordance Will 0.0.1	A See self
8.9.1.2	Valved particle filtering half masks A total of 12 valved particle filtering half masks shall	后外都
1	be tested: 3 as received, 3 after temperature	
	conditioning in accordance with 8.3.2, 3 after the test	/ P
	for simulated wearing in accordance with 8.3.1and	
0.0.5	3 after the flow conditioning in accordance with 8.3.4.	
8.9.2	Exhalation resistance	- /
	Seal the particle filtering half mask on the Sheffield dummy head. Measure the exhalation resistance at	
	the opening for mouth of the dummy head using the	/P
1	adapter shown in Figure 6 and a breathing machine	

		No: XMT0202001253L	V/DE
	1		.1/P
市防护用品	continued to 25 cycles in in any 23 the stroker or a continued flow 160 l/min. Use a suitable pressure	唐山市防护用品有限公司	
/	transducer.		
8.9.3	Inhalation resistance		2
	Test the inhalation resistance at 30 l/min and 95 l/min		3
1000000000	continuous flow.	/ P	
8.10	Clogging		1
8.10.1	Principle		
	The test aerosol shall be dolomite. A total of 3		
	particle filtering half masks shall be tested: 1 as	, p	6"
	received and 2 after temperature conditioning in accordance with 8,3,2.		
8.10.2	Test equipment	<del>\</del> .	0
0.10.2	A scheme of a typical apparatus is given in Figure		
(市院拉田県)	有限经司The working arean the heat chambes has a	康山市防护用品有限公司 P	6
WINT HIDD	suggested square section of 650 mm × 650 mm.	MINIOTH BUTTON	
8.10.3	Tes conditions		-ug
1	Dust; DRB 4 15 dolomite		-
, 1	The size distribution of dolomite dust is given in Table	given in Table 5. P	-
	3.	given in rable 5.	
8.10.4	Test procedure	1 = 4	1
	Convey dust from the distributor to the dust chamber	P	
0.40.5	where it is dispersed into the air stream of 60 m3/h.		/
8.10.5	Assessment of clogging		
	Following the expectate measure the breathing resistance of the particle filtering all mask using	iv accordance with	
	clean air. Then measure the filter penetration in	accordance with	E.
1	accordance with 8.11.		
他对护用品在	有限Permetration of filter newtertens护用品有限公司	唐山市防护用品有限公司 -	8
	The device shall be mounted in a leaktight manner		9 -
-	on a suitable adaptor and subjected to the test(s),	+ +- /- /- /- /- /- /- /- /- /- /- /- /- /-	
	ensuring that companies of the revice that could affect filter penetration alues such as valves and	<b>37 1</b> 3%	
	harriess attachment points are exposed to the	土 / X	V
-	challenge aerosol.	1 7 0 7 7	
9	Marking	P	1
9.1	Packaging		7
72-43	The following information shall be clearly and durably	N. H.	1
	marked on the smallest commercially available	《旅员币》	
	packaging or legible through it if the packaging is	The State of the S	1
1	transparent.	14 14	Y Y
9.1.1	The name, trademark or other means of identification		H
	有限於the manufacturer question 用品有限公司	廣山市防护用品有限公司等	7
9.1.2	Type-identifying marking.  Classification	THE TANK	
9.1.3	The appropriate class (FFP1, FFP2 or FFP3)	EV	
ľ.	followed by a single space and then:		
	"NR" if the particle filtering half mask is limited to	FFP2 R	
	single shift use only. Example: FFP3 NR, or		1
	"R" if the particle filtering half mask is re-usable.		1
a=chinyA	Example: FFP2 R D."		-/
9.1.4	The number and year of publication of this European		1
0.4.5	Standard.	/	
9.1.5	At least the year of end of shelf life. The end of shelf	P	ğ
	life may be informed by a pictogram as shown in		

#### **USER'S MANUAL**



### For your health we recommend that you perform a simple 4-step check before use.

- 1. There is no damage or serious pollution on the overall appearance of the mask;
- 2. The strap is not damaged and has good elasticity;
- 3. There is no damage or break of the metal nose clip;
- If there is an exhalation valve, check the condition of the exhalation valve and valve plate to find whether there is damage and loss or not.

# For correct wearing method, please follow the following steps when wearing the earloop mask:

 The metal nose clip is outward, and pull the straps with both hands to ensure that the nose clip is upward;



① Bend the metal strip on the bridge of nose to match the shape of your nose, and cover your nose and mouth with dust mask.



Place the belt behind the head and

- 2. Put on the mask, place the chin in the mask, and buckle the strap behind the ear with both hands;
- 3. Adjust to a comfortable position to make the mask fit your face;
- Use the forefinger and middle finger of both hands to press and adjust the metal nose clip until it is close to the bridge of nose;
- 5. Carry out air tightness inspection.

# The air tightness test is as follows. Check the tightness between the mask and the face:

- 1. Put your hands and fingers together, buckle them on the mask, and do not move the position of the mask;
- 2. Inhale forcefully, hold your breath for a few seconds, and feel the mask collapse inward obviously;
- 3. Exhale forcefully, hold your breath for a few seconds, and feel the mask bulge outwards obviously;
- 4. If air leakage is detected, please recheck according to steps 1-3 until the requirements of step 2 and 3 are met at the same time;
- 5. Only the masks that have passed the inspection in steps 1-3 can meet the air tightness requirements of the protection level masks.

adjust the elastic strap to a comfortable position.



③ Use your fingers to adjust the upper and lower elastic straps along the nose from the bridge of the nose until you confirm the sealing of the dust mask.

#### Use and storage

- 1. Suitable for adults:
- 2. Do not wash with water:
- 3. It should be stored in a well ventilated, dark and dry environment, and away from fire and pollution;
- 4. Storage temperature, 20-38  $^{\circ}$ C, storage humidity less than 80%;
- 5. Storage period: 3 years (see outer box packaging for production date)

Product name: Particulate protection mask

Material: non-woven fabric. Filter layer. Ear elastic nylon

Scope of application: electric welding, dust grinding, coal mine, chemical industry, etc



(Hebei China) XK02-001-00153

#### Features:

- Three-dimensional design increases mask space, eliminate the breath urgency of general masks;
- Folded design to prevent the inside of the mask from being exposed or contaminated, keep the mask clean, maintain personal hygiene, and facilitate storage without occupying space.

Tangshan Yuchuang Protective Equipment Co., Ltd.

Address: No.44 Guye Yimian Street, Guye District, Tangshan