

NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Shenzhen Mingjiang Medical Supplies Development Co., Ltd.

Model Tested: KN95 Multiple Layer Protective Mask

Date Tested: May 22, 2020

These findings pertain to the Shenzhen Mingjiang Medical Supplies Development Co., Ltd., KN95 Multiple Layer Protective Mask. The labeling for this product indicates that it meets GB2626-2006 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator).

Thirty respirators were submitted for evaluation. The respirators were sampled into groups of ten for evaluation. The samples were tested using a modified version of NIOSH Standard Test Procedure (STP) TEB-APR-STP-0059. This modified assessment plan can be found [here](#).

No certificate of approval was provided with the samples received; therefore, the authenticity of the claims cannot be validated.

The maximum and minimum filter efficiency was 99.40% and 93.67%, respectively. Twenty-four respirators measured more than 95%. Six measured less than 95%.

While the above-listed product classification has similar performance requirements to NIOSH-approved devices, NIOSH does not have knowledge about the sustained manufacturer quality system and product quality control for these products. NIOSH also does not have knowledge about the product's handling and exposures after leaving its manufacturer's control.

In addition, this product is an ear loop design. Currently, there are no NIOSH-approved products with ear loops; NIOSH-approved N95s have head bands. Furthermore, limited assessment of ear loop designs, indicate difficulty achieving a proper fit. While filter efficiency shows how well the filter media performs, users must ensure a proper fit is achieved.

This assessment is not a part of the NIOSH respirator approval process and will in no way lead to or preclude NIOSH approval through the official approval process. This assessment was developed as an assessment of the filter efficiency for those respirator's represented as certified by an international certification authority, other than NIOSH, to support the availability of respiratory protection to US healthcare workers due to the respirator shortage associated with COVID-19. Only particulate filter efficiency was assessed.

The results provided in this letter are specific to the subset of samples that were provided to NPPTL for evaluation.

These results will be used to update the CDC guidance for [Crisis Capacity Strategies \(during known shortages\)](#).

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: May 22, 2020

Report Prepared: May 22, 2020

Manufacturer: Shenzhen Mingjiang Medical Supplies Development Co., Ltd.

Item Tested: KN95 Multiple Layer Protective Mask (Sample Group 1 of 3)

Country of Certification: China (GB2626-2006)

Pictures have been added to the end of this report.

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
1	85	15.6	0.60	0.60	99.40
2	85	17.0	1.68	1.68	98.32
3	85	11.6	3.95	3.95	96.05
4	85	12.5	4.31	4.31	95.69
5	85	12.0	5.04	5.04	94.96
6	85	13.3	2.35	2.35	97.65
7	85	8.7	4.56	4.56	95.44
8	85	12.6	3.28	3.28	96.72
9	85	14.2	2.26	2.26	97.74
10	85	17.0	0.74	0.74	99.26
Minimum Filter Efficiency: 94.96			Maximum Filter Efficiency: 99.40		

- The test method utilized in this assessment is not the NIOSH standard test procedure that is used for certification of respirators. Respirators assessed to this modified test plan do not meet the requirements of STP-0059, and therefore cannot be considered equivalent to N95 respirators that were tested to STP-0059.
- Respirators tested may not be representative of all respirators with the same certification mark. NIOSH has no control over suppliers and distributors of respirators certified by other national or international parties.
- This assessment is not a confirmation that it conforms with any or all of its specifications in accordance with its certification mark.
- This assessment was not a part of the NIOSH approval program. These results do not imply nor preclude a future approval through the NIOSH respirator approval program.

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Test: Modified TEB-APR-STP-0059

Date Tested: May 22, 2020

Report Prepared: May 22, 2020

Manufacturer: Shenzhen Mingjiang Medical Supplies Development Co., Ltd.

Item Tested: KN95 Multiple Layer Protective Mask (Sample Group 2 of 3)

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
11	85	15.7	1.49	1.49	98.51
12	85	14.6	1.44	1.44	98.56
13	85	11.6	6.20	6.20	93.80
14	85	12.1	4.88	4.88	95.12
15	85	12.5	1.44	1.44	98.56
16	85	15.2	0.94	0.94	99.06
17	85	9.1	6.33	6.33	93.67
18	85	13.2	3.67	3.67	96.33
19	85	11.4	2.72	2.72	97.28
20	85	11.2	6.01	6.01	93.99
Minimum Filter Efficiency: 93.67			Maximum Filter Efficiency: 99.06		

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NPPTL COVID-19 Response: International Respirator Assessment

Test: Modified TEB-APR-STP-0059

Date Tested: May 22, 2020

Report Prepared: May 22, 2020

Manufacturer: Shenzhen Mingjiang Medical Supplies Development Co., Ltd.

Item Tested: KN95 Multiple Layer Protective Mask (Sample Group 3 of 3)

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
21	85	10.6	3.21	3.21	96.79
22	85	10.9	3.15	3.15	96.85
23	85	11.6	5.58	5.58	94.42
24	85	14.8	3.43	3.43	96.57
25	85	12.8	3.16	3.16	96.84
26	85	15.7	2.67	2.67	97.33
27	85	13.3	1.78	1.78	98.22
28	85	12.6	3.14	3.14	96.86
29	85	9.9	5.87	5.87	94.13
30	85	12.9	2.40	2.40	97.60
Minimum Filter Efficiency: 94.13			Maximum Filter Efficiency: 98.22		

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Function

Mask on mouth and nose, prevent inhalation of dust

Wearing method


- 1] Face the mask without nose clip, place the nose clip over the mask, hold the mask on your face, put the mask on your chin
- 2] Just pull the ear band to the outside of both ears and hang it
- 3] Put your fingers in the middle of the metal nose clip, press in while moving the fingertips to both sides along the nose clip, until the nose clip is fully pressed into the shape of the bridge of the nose
- 4] Put your hands on your face to check face mask tightness








Product information

[PRODUCT NAME] MULTIPLE LAYER PROTECTIVE MASK KN95
[MODEL] KN95
[PRODUCT PERFORMANCE STRUCTURE AND COMPOSITION]
The product is composed of mask body, nose clip and mask belt. There are five layer in the mask body: the inner and outer layers are polypropylene (PP) non-woven fabric, and the middle filtration layer: High density Meltblown non-woven fabric
[MANUFACTURER]
Shenzhen MingJiang Medical Supplies Development Co. LTD
[ADDRESS]
Room 291, building 63, fumin industrial zone, pinghu community, pinghu street, Jiong gang district, shenzhen
[NOTE] The patient has difficulty in breathing or congenital heart disease should use it carefully. This product can not be use as gas mask in toxic environment

Executive Standard: GB 2626-2006
Expiration Date: 2 years
Production date: 2020.05.02
Batch: 20200403KN (NON-MEDICAL)



    **MADE IN CHINA**



INFLUENZA VIRUS AUTOMOBILE EXHAUST DECORATION ODOR POLLEN ALLERGY

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