

## NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Yiwu Qixun Scientific Co., Ltd.  
Model Tested: KN95 Disposable Folding Mask  
Date Tested: August 13, 2020

These findings pertain to the Yiwu Qixun Technology Co., Ltd., KN95 Disposable Folding Mask. The packaging for this product indicates that it meets GB2626-2006 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator) and EN149:2001+A1:2009 (the European standard for Respiratory Protective Devices – Filtering Half Masks to Protect Against Particles – Requirements, Testing, Marking).

Two hundred seventy respirators (27 packages of 10) were submitted for evaluation. To obtain a sample size of 30, one respirator was randomly sampled from each package plus 3 additional respirators to equal 30. 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 99.76% and 96.44%, respectively. All thirty respirators measured more 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 respirators 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:** August 13, 2020

**Report Prepared:** August 13, 2020

**Manufacturer:** Yiwu Qixun Scientific Co., Ltd.

**Item Tested:** KN95 Disposable Folding Mask

**Country of Certification:** China (GB2626-2006), European (EN149:2001+A1:2009)

Pictures have been added to the end of this report.

Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH <sub>2</sub> O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
1	85	12.1	0.58	0.58	99.42
2	85	15.0	0.52	0.52	99.48
3	85	15.4	0.24	0.24	99.76
4	85	16.7	0.43	0.43	99.57
5	85	13.1	1.58	1.70	98.30
6	85	13.7	1.43	1.54	98.46
7	85	14.3	1.68	1.87	98.13
8	85	14.5	1.43	1.61	98.39
9	85	18.9	3.56	3.56	96.44
10	85	12.8	0.60	0.60	99.40
<b>Minimum Filter Efficiency: 96.44%</b>			<b>Maximum Filter Efficiency: 99.76%</b>		

- 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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Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH <sub>2</sub> O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
11	85	15.2	0.48	0.48	99.52
12	85	14.0	0.64	0.64	99.36
13	85	15.3	1.80	2.04	97.96
14	85	14.9	1.09	1.18	98.82
15	85	24.4	2.06	2.06	97.94
16	85	14.1	0.43	0.43	99.57
17	85	17.4	1.74	1.91	98.09
18	85	12.4	3.01	3.01	96.99
19	85	18.4	0.70	0.70	99.30
20	85	18.5	0.24	0.24	99.76
<b>Minimum Filter Efficiency: 96.99%</b>			<b>Maximum Filter Efficiency: 99.76%</b>		

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Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH <sub>2</sub> O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
21	85	14.4	1.28	1.28	98.72
22	85	12.2	1.75	2.11	97.89
23	85	12.7	0.97	0.97	99.03
24	85	18.4	2.78	2.78	97.22
25	85	14.4	0.48	0.48	99.52
26	85	13.2	0.72	0.72	99.28
27	85	11.3	0.99	0.99	99.01
28	85	13.3	0.40	0.40	99.60
29	85	16.5	0.61	0.61	99.39
30	85	13.1	0.55	0.55	99.45
<b>Minimum Filter Efficiency: 97.22%</b>			<b>Maximum Filter Efficiency: 99.60%</b>		

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**合格证**

使用方法：日常环境中佩戴，覆盖口、鼻及下颚  
 Usage : For everyday use, covering mouth, nose and chin  
 注意事项：不能长时间佩戴，建议4小时更换，才能发挥保护作用  
 Notice : Do not wear it for a long time, it is recommended to replace it for 4 hours to play a protective role  
 本产品为非医疗器械 仅供应急使用  
 This product is for urgent use only  
 厂址：浙江省义乌市机场路627号  
 Addrss: NO.627 JICHANG ROADBEIYUAN YIWU JINHAU ,CHINA  
 义乌市期旬科技有限公司  
 YIWU QIXUN Scientific CO., Ltd  
 电话：0579-85421088  
 TEL: 0579-85421088

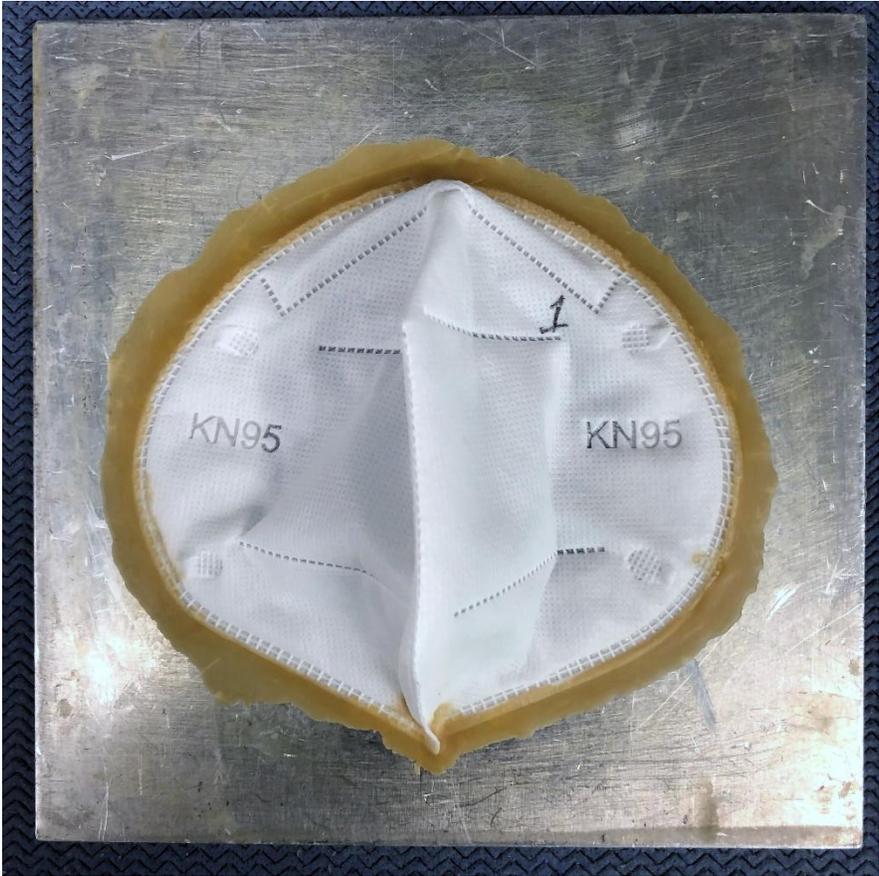
**检**

期旬 KN95 口罩  
 QIXUN KN95 mask  
 执行标准：GB 2626-2006  
 standard: GB 2626-2006  
 规格：10只装  
 Specification : 10 PCS  
 生产日期：2020.4.12  
 Expiring date: 12, Apr, 2020  
 有效期：三年  
 Term of validity: two years

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