

NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Ningbo Jingeao Electronics, Inc.

Model Tested: KN95 Particulate Respirator Mask (Non-Medical)

Date Tested: September 9, 2020

These findings pertain to the Ningbo Jingeao Electronics, Inc., model KN95 Particulate Respirator Mask (Non-Medical). The packaging for this product indicates that it meets GB2626-2006 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator).

Ten respirators were submitted 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 94.67% and 91.77%, respectively. All ten respirators 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 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: September 9, 2020

Report Prepared: September 9, 2020

Manufacturer: Ningbo Jingeao Electronics, Inc.

Item Tested: KN95 Particulate Respirator Mask (Non-Medical)

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 | 20.2 | 6.88 | 6.88 | 93.12 |
| 2 | 85 | 17.1 | 6.80 | 6.80 | 93.20 |
| 3 | 85 | 19.1 | 5.58 | 5.58 | 94.42 |
| 4 | 85 | 17.4 | 7.25 | 7.25 | 92.75 |
| 5 | 85 | 21.1 | 8.23 | 8.23 | 91.77 |
| 6 | 85 | 21.6 | 6.25 | 6.25 | 93.75 |
| 7 | 85 | 19.6 | 5.33 | 5.33 | 94.67 |
| 8 | 85 | 19.5 | 7.66 | 7.66 | 92.34 |
| 9 | 85 | 15.5 | 6.00 | 6.00 | 94.00 |
| 10 | 85 | 17.3 | 6.34 | 6.34 | 93.66 |
| Minimum Filter Efficiency: 91.77% | | | Maximum Filter Efficiency: 94.67% | | |

- 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.



WARNINGS

Failure to properly select the appropriate respirator for all the contaminants and their concentrations against which protection is required, or a failure to follow either these Warnings and the instructions for Use, or the Cautions and Limitations contained within the CE Approval Label on the other panel of this box, will result in exposure to the hazardous materials and the risk of injury illness or death.

Do Not use this respirator under any of the following conditions: For protection against Arsenic, Asbestos or Lead in any concentration. For protection against gases or vapors against unknown contaminants: or against any contaminant whose concentration is unknown.

While performing or observing abrasive blasting (sandblasting) operations, or for firefighting. In confined spaces such as tanks, small rooms, tunnels or vessels, unless the confined space is well ventilated and the concentration of toxic contaminants is known to be below the Maximum Use Concentration recommended for this respirator.

When conditions prevent a good face piece to face seal For example:
(1) the growth of beards, mustaches or sideburns which will pass between the face piece sealing area and the face;
(2) the use of spectacles, goggles or other devices which interfere with the respirator;
(3) the use of head or face coverings which contain materials that will pass between the; face piece sealing area and the face and
(4) missing teeth or dentures, facial deformities of deep scars;

Immediately leave the contaminated area if:
(a) breathing becomes difficult;
(b) dizziness or other distress occurs;
(c) you smell irritation taste from the contaminants or
(d) the respirator becomes damaged.

Any air purifying respirator, when properly selected and fitted, will significantly reduce, but will not completely eliminate, the breathing of contaminant(s) by the respirator wearer. You will obtain better protection from a supplied air respirator.



Made in China

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| 产品合格证 CERTIFICATION | |
|--|--|
| 产品名称：KN95防护口罩(非医用) Product Name: KN95 Particulate Respirator mask(Non-Medical) | |
| 产品型号：非无菌折叠式、耳挂式 Product model: Non-sterile folding ear-loop | |
| 产品规格：105×155mm Specification: 105×155 mm | |
| 数量：5个/袋(非独立包装) Quantity: 5pcs/bag (Non-individual package) | |
| 主要成分：40%无纺布+30%熔喷布+30%过滤棉 Main material: non-woven cloth 40% + melt-blown fabric 30%+Filter cotton 30% | |
| 执行标准：GB2626-2006 Standard: G2626-2006 | |
| 生产批号：20200430 LOT Number: | |
| 生产日期：2020.04.30 Production Date: | |
| 有效期：1年 Valid period: 1 year | |
| 检验员：检02 Inspector: QC 02 | |
| 生产企业：宁波金格奥电器股份有限公司 Manufacturer: Ningbo Jingeao Electronics Inc. | |
| 生产地址：浙江省慈溪市龙山工业园区金园大道2号 Address: NO. 2 Jinyuan Road, Longshan Industrial Zone, Ningbo Zhejiang, China | |
| 建议储存条件：储存温度-20℃~33℃相对湿度不超过80%，无腐蚀性气体或通风良好的室内运输中产品不得过与挤压，以免包装破损。 Recommended storage conditions: storage temperature: -20~33°C, relative humidity no more than 80%, no corrosive gas or well-ventilated indoor, the product should not be too extrusion during transportation so as to avoid packaging damage. | |

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