NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Guangzhou Powecom Labor Insurance Supplies Co., Ltd.
Model Tested: KN95 Protective Mask
Date Tested: July 13, 2020

These findings pertain to the Guangzhou Powecom Labor Insurance Supplies Co., Ltd., model KN95 Protective Mask. The packaging and labeling for this product indicate 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 99.60% and 99.43%, respectively. All ten 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:** July 13, 2020  
**Report Prepared:** July 13, 2020  
**Manufacturer:** Guangzhou Powecom Labor Insurance Supplies Co., Ltd.  
**Item Tested:** KN95 Protective Mask  
**Country of Certification:** China (GB2626-2006)

<table>
<thead>
<tr>
<th>Filter</th>
<th>Flow Rate (Lpm)</th>
<th>Initial Filter Resistance (mmH₂O)</th>
<th>Initial Percent Leakage (%)</th>
<th>Maximum Percent Leakage (%)</th>
<th>Filter Efficiency</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>85</td>
<td>12.8</td>
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<td>0.57</td>
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<td>12.1</td>
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<td>99.50</td>
</tr>
</tbody>
</table>

**Minimum Filter Efficiency:** 99.43  
**Maximum Filter Efficiency:** 99.60

- 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.
APPLICATION:
Suitable for protection against powder, PM2.5 smoke, particulates, saliva, dust etc. The face mask is good for wind proof and protection the face against cold weather.

INSTRUCTION FOR USE:

1. Open the mask and place the bridge of the nose on it. After wearing the mask, press the bridge of the nose to close. The protective effect is better.

MODEL NO.: KN95

PRODUCTION DATE AND EXPIRATION:
Store in clean and cool place; humidity <80%; temperature -10°C ~ 40°C
Product valid for three years

STANDARD: GB2626 - 2006 KN95

CAUTIONS:
1. Keep the face mask clean before use. Do not touch the rear side of face mask.
2. Ensure the face mask fit to face, by adjusting the nose piece, keeping mask edge close to face.
3. Check the air sealing of mask. Do not use if the face mask is broken or with hole or leakage.
4. Do not wash the face mask with water. Water will destroy filtering ability and protection.
5. Do not steam the face mask, and do not put it in microwaved.
6. Keep the face mask away from vapor, oils, chemicals, paints, liquid, acid, alkaline objects.
7. Discard the face mask when it gets quite dirty or breathing resistance increase remarkably.

MANUFACTURER:
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Made in China
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**PRODUCT INSTRUCTION**

**MODEL:** KN95 (Earloop style)

**ITEM:** KN95 Protective Mask

**APPLICATION:** Suitable for protection against powder, PM2.5 smog, particulates, saliva, dust etc. The face mask is good for windproof and protection the face against cold weather.

**COMPOSITION:**
- Outer layer: PP Non-woven fabric
- Middle layer: ES hot air cotton Non-woven fabric and efficiency electrostatic Melt-blown fabric
- Inner layer: PP Non-woven fabric

**Executive standard:** GB 2626–2006 KN95
**Non-oily particulate filtering efficiency:** ≥95%

**STORAGE TEMPERATURE:** Temperature: -10°C ~ 40°C, humidity < 80%
Store in dry and cool place

**VALIDITY:** Three years

**INSTRUCTION FOR USE:**
1. Stretch face mask
2. Place the ear-loops to ear
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