NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Jinhua Jiadaifu Medical Supplies Co., Ltd.
Model Tested: KN95 Face Mask (Non-Medical)
Date Tested: May 6, 2020

These findings pertain to the Jinhua Jiadaifu Medical Supplies Co., Ltd., model KN95 Face 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 99.57% and 54.90%, respectively. Eight respirators measured more than 95%. Two 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 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).
NPPTL COVID-19 Response: International Respirator Assessment

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: May 6, 2020

Report Prepared: May 7, 2020

Manufacturer: Jinhua Jiadaifu Medical Supplies Co., Ltd.

Item Tested: KN95 Face Mask (Non-Medical)

Country of Certification: China (Chinese Standard 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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>85</td>
<td>15.7</td>
<td>1.00</td>
<td>1.00</td>
<td>99.00</td>
</tr>
<tr>
<td>2</td>
<td>85</td>
<td>17.0</td>
<td>0.48</td>
<td>0.48</td>
<td>99.52</td>
</tr>
<tr>
<td>3</td>
<td>85</td>
<td>16.0</td>
<td>0.48</td>
<td>0.48</td>
<td>99.52</td>
</tr>
<tr>
<td>4</td>
<td>85</td>
<td>15.5</td>
<td>1.04</td>
<td>1.04</td>
<td>98.96</td>
</tr>
<tr>
<td>5</td>
<td>85</td>
<td>15.0</td>
<td>0.50</td>
<td>0.50</td>
<td>99.50</td>
</tr>
<tr>
<td>6</td>
<td>85</td>
<td>16.0</td>
<td>0.43</td>
<td>0.43</td>
<td>99.57</td>
</tr>
<tr>
<td>7</td>
<td>85</td>
<td>8.6</td>
<td>42.0</td>
<td>42.0</td>
<td>58.00</td>
</tr>
<tr>
<td>8</td>
<td>85</td>
<td>17.0</td>
<td>0.49</td>
<td>0.49</td>
<td>99.51</td>
</tr>
<tr>
<td>9</td>
<td>85</td>
<td>8.7</td>
<td>45.1</td>
<td>45.1</td>
<td>54.90</td>
</tr>
<tr>
<td>10</td>
<td>85</td>
<td>16.5</td>
<td>0.44</td>
<td>0.44</td>
<td>99.56</td>
</tr>
</tbody>
</table>

Minimum Filter Efficiency: 54.90  Maximum Filter Efficiency: 99.57

- 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.

Pictures have been added to the end of this report.
NPPTL COVID-19 Response: International Respirator Assessment
INSTRUCTION FOR USE
It is suitable for filtering non oil particles and oil particles (such as dust, droplets, pollen, carkins, haze, etc.) suspended in the air under special operation or daily living conditions.

WAY OF WEARING
1. Put on the respirator, adjust the position to cover your nose and chin.
2. Adjust the nosepiece and press it, make sure the respirator fits your face closely.
3. If the respirator is contaminated, mold or wet before use due to inappropriate storage, please dispose.

With the nosepiece away from you, pull out the strap with the nosepiece up.

MATTERS NEEDING ATTENTION
1. This product is not suitable for protecting harmful gases, steam.
2. This product is not oxygen supply device, not suitable for anoxic environment, underwater operation, escape and fire fighting environment.
3. If the face do not have good sealing with the edge of mask during use, we recommend to throw it away.
4. During use, if the mask is damaged or the respiratory resistance is too large, replace the mask with a new one.
5. This product is disposable and should not be reused. It is recommended to use within 4-8 hours.

PRODUCT INFORMATION

<table>
<thead>
<tr>
<th>Product Brand</th>
<th>Multi-effect protective mask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>PP non-woven KN95 non-woven material</td>
</tr>
<tr>
<td>Product name</td>
<td>Adult</td>
</tr>
<tr>
<td>Product specification</td>
<td>Three years</td>
</tr>
<tr>
<td>Period of validity</td>
<td>GB2626-2006</td>
</tr>
<tr>
<td>Executive standard</td>
<td>GB2626-2006</td>
</tr>
<tr>
<td>Date of manufacture</td>
<td>CHINA</td>
</tr>
<tr>
<td>Country of origin</td>
<td>CHINA</td>
</tr>
</tbody>
</table>

STORAGE INSTRUCTIONS:
The product should be stored in a cool environment with relative humidity no more than 80%, temperatures below 40°C, good ventilation, dry and dry, avoiding direct sunlight.
NPPTL COVID-19 Response: International Respirator Assessment
NPPTL COVID-19 Response: International Respirator Assessment

**KN95**

*Greeting the day
Greeting the future*

**Instructions**

1. Place fingers inside the particle half mask. Bend the nose clip around fingers to form nose shape.
2. Hold the particle half mask in position over the nose and mouth. Pull the head harness behind the ears.
3. Using both hands, form the nose clip around the nose and shift the head harness to ensure a positive face seal.
4. Perform a check:
   - To test the fit of the particle half mask without an exhalation valve, cup both hands over mask and breathe sharply.
   - If air flow is felt in the nose area, re-adjust/tighten the nose clip.
   - If air flow is felt around the edges of the respirator, re-position the particle half mask/head harness to achieve a better fit.
5. Change the mask immediately if breathing becomes difficult or mask becomes damaged or distorted.
6. Change the mask if a proper face seal cannot be achieved.
7. Careful observance of these instructions is an important step in safe respirator use.

![Instructions](image)

Producer: Jinhua Jiadaifu Supplies
Address: Dongxi industrial zone, Ballongoliao Town, Wucheng District, Jinhua City, Zhejiang Province, China

Made in China
NPPTL COVID-19 Response: International Respirator Assessment
NPPTL COVID-19 Response: International Respirator Assessment