NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Yufing (Guangdong) Lighting Technology Co., Ltd.
Model Tested: 9001V KN95 Earloop Type
Date Tested: June 1, 2020

These findings pertain to the Yufing (Guangdong) Lighting Technology Co., Ltd., 9001V KN95 Earloop Type. 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 observed was 74.40% and 42.00%, 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 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: June 1, 2020

Report Prepared: June 2, 2020

Manufacturer: Yufing (Guangdong) Lighting Technology Co., Ltd.

Item Tested: 9001V KN95 Earloop Type

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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>85</td>
<td>13.4</td>
<td>28.8</td>
<td>28.8</td>
<td>71.20</td>
</tr>
<tr>
<td>2</td>
<td>85</td>
<td>13.7</td>
<td>26.7</td>
<td>26.7</td>
<td>73.30</td>
</tr>
<tr>
<td>3</td>
<td>85</td>
<td>13.5</td>
<td>25.6</td>
<td>25.6</td>
<td>74.40</td>
</tr>
<tr>
<td>4</td>
<td>85</td>
<td>10.9</td>
<td>36.9</td>
<td>36.9</td>
<td>63.10</td>
</tr>
<tr>
<td>5</td>
<td>85</td>
<td>10.9</td>
<td>36.2</td>
<td>36.2</td>
<td>63.80</td>
</tr>
<tr>
<td>6</td>
<td>85</td>
<td>9.7</td>
<td>48.7</td>
<td>48.7</td>
<td>51.30</td>
</tr>
<tr>
<td>7</td>
<td>85</td>
<td>9.5</td>
<td>55.0</td>
<td>55.4</td>
<td>44.60</td>
</tr>
<tr>
<td>8</td>
<td>85</td>
<td>9.2</td>
<td>58.0</td>
<td>58.0</td>
<td>42.00</td>
</tr>
<tr>
<td>9</td>
<td>85</td>
<td>9.6</td>
<td>52.7</td>
<td>52.7</td>
<td>47.30</td>
</tr>
<tr>
<td>10</td>
<td>85</td>
<td>9.2</td>
<td>56.8</td>
<td>56.9</td>
<td>43.10</td>
</tr>
</tbody>
</table>

Minimum Filter Efficiency: 42.00  Maximum Filter Efficiency: 74.40

- 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.
NPPTL COVID-19 Response: International Respirator Assessment

[Product Name]: Protective Mask
[Product Specification and Model]: 9001TV, KN95 Earloop type, 5pcs per bag, 25pcs per box.
[Main Performance]:
Filter performance, ventilation assistance, microbial indicator, skin irritation, and delayed hypersensitivity all meet the requirements of GB2626-2006 <Protective Mask>.

PRECAUTIONS FOR USE
1. Please check whether the packaging is intact before use, confirm the outer package identification, date of manufacture, expiration date, and use it within the expiration date.
2. The face masks are for non-children use.
3. Make sure the bottom of the mask is over your mouth and chin to get the desired protection.
4. Use with caution for people who are allergic to spunbond non-woven.
5. After the product is used, it should be disposed according to the requirements of the hospital and environmental protection department.

[Storage Condition]: This product should be stored in a dry, ventilated and non-corrosive gas environment. Keep it away from fire sources and flammable materials.
[Transport conditions]: Avoid heavy pressure, direct sunlight, and rain & snow erosion during transportation.
[Manufacturer]: Yufing (Guangdong) Lighting Technology Co., Ltd.
[Authorized Sales Company]: Yufing Intelligent Technology Group Co., Ltd.
[Address]: No. 3, Jumna 1st Road, Chigang, Humen Town, Dongguan, China
[Contact Telephone]: 400-1538-158
[Executive Standard]: GB2626-2006
[Application]: For use in general non-medical environments
[Component]: The face mask is composed of meltblown, spunbond, mask belt and nose clips. It's usually made of high quality spunbond non-woven materials. It blocks bacteria by filtering particulate matter, oily and non-oily particles.
[Date of manufacture]: See it on the package
[Period of Validity]: 2 years
NPPTL COVID-19 Response: International Respirator Assessment
NPPTL COVID-19 Response: International Respirator Assessment