NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Guangdong Fei Fan Mstar Technology Ltd.
Model Tested: Purvigor N95 Protective Mask
Date Tested: June 3, 2020

These findings pertain to the Guangdong Fei Fan Mstar Technology Ltd., Purvigor N95 Protective 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).

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 99.68% and 97.32%, 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 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).
Evaluation of International Respirators

**Test:** Modified TEB-APR-STP-0059

**Date Tested:** June 3, 2020

**Report Prepared:** June 3, 2020

**Manufacturer:** Guangdong Fei Fan Mstar Technology Ltd.

**Item Tested:** Purvigor N95 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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>85</td>
<td>19.4</td>
<td>1.32</td>
<td>1.32</td>
<td>98.68</td>
</tr>
<tr>
<td>2</td>
<td>85</td>
<td>27.0</td>
<td>1.37</td>
<td>1.37</td>
<td>98.63</td>
</tr>
<tr>
<td>3</td>
<td>85</td>
<td>25.7</td>
<td>0.32</td>
<td>0.32</td>
<td>99.68</td>
</tr>
<tr>
<td>4</td>
<td>85</td>
<td>19.4</td>
<td>2.68</td>
<td>2.68</td>
<td>97.32</td>
</tr>
<tr>
<td>5</td>
<td>85</td>
<td>23.5</td>
<td>1.23</td>
<td>1.23</td>
<td>98.77</td>
</tr>
<tr>
<td>6</td>
<td>85</td>
<td>20.5</td>
<td>1.19</td>
<td>1.19</td>
<td>98.81</td>
</tr>
<tr>
<td>7</td>
<td>85</td>
<td>21.8</td>
<td>0.69</td>
<td>0.69</td>
<td>99.31</td>
</tr>
<tr>
<td>8</td>
<td>85</td>
<td>21.1</td>
<td>1.55</td>
<td>1.55</td>
<td>98.45</td>
</tr>
<tr>
<td>9</td>
<td>85</td>
<td>21.7</td>
<td>1.18</td>
<td>1.18</td>
<td>98.82</td>
</tr>
<tr>
<td>10</td>
<td>85</td>
<td>32.3</td>
<td>0.85</td>
<td>0.85</td>
<td>99.15</td>
</tr>
</tbody>
</table>

Minimum Filter Efficiency: 97.32

Maximum Filter Efficiency: 99.68

- 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

N95 PROTECTIVE MASK

5 LAYERS OF PROTECTION
PFE >95%  BFE >95%
FFP2 PROTECTION
ANTI-INFECTION
DUST PROTECTION PM 2.5

This product is a NON-MEDICAL device.
1. Open the face mask, hold the ear straps with both hands and let the nose clip be above the mask.
2. Keep the lower part of the mask close to your chin to cover your mouth and nose.
3. Hang on the ear straps to both ears separately.
4. Press the nose clip with both hands. Press from both sides of the nose to the face until they are completely pressed into the shape of the nose bridge.
5. This product is a non-medical device.

N95 PROTECTIVE MASK

Material: Melt-blown Filter, Non-woven Fabric

Attention
1. Keep packing sealed, store in room temperature and avoid sunshine, do not store with any toxin material.
2. For single use only. Don’t discard into toilet.

Authorized Manufacturer: GuangDong Fei Fan Metar Technology Ltd
Address of Manufacturer: A1 workshop, No. 10, Dongnan Xincun Avenue, zone 2, caobian No.3 Industrial Zone, Dali Town, Nanhui District, Foshan Guangdong, 528200, China
Production Date: (yy/mm/dd) Validity: 2 years

• GB2626-2006 Standard
• China Outstanding Brand
• China Green Environmental Protection Products
• Qualified Products of China Quality Inspection
• Quality, Service, Integrity AAA Enterprise (China)
• China Outstanding Environmental Protection Enterprise
• Green Economy Demonstration Enterprise in Guangdong Province
NPPTL COVID-19 Response: International Respirator Assessment
NPPTL COVID-19 Response: International Respirator Assessment