NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: BiotechInnova
Model Tested: TechnoWeb N95 Surgical Mask
Date Tested: July 30, 2020

These findings pertain to the BiotechInnova, Model TechnoWeb N95 Surgical Mask. The information submitted with this product does not indicate what standard this product meets.

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 99.62% and 92.78%, respectively. One of the ten respirators measured less than 95%.

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).
NPPTL COVID-19 Response: International Respirator Assessment

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: July 30, 2020

Report Prepared: July 31, 2020

Manufacturer: BiotechInnova

Item Tested: TechnoWeb N95 Surgical Mask

Country of Certification: UNKNOWN

<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>14.6</td>
<td>0.90</td>
<td>0.90</td>
<td>99.10</td>
</tr>
<tr>
<td>2</td>
<td>85</td>
<td>13.8</td>
<td>1.05</td>
<td>1.05</td>
<td>98.95</td>
</tr>
<tr>
<td>3</td>
<td>85</td>
<td>24.2</td>
<td>0.50</td>
<td>0.50</td>
<td>99.50</td>
</tr>
<tr>
<td>4</td>
<td>85</td>
<td>18.2</td>
<td>0.76</td>
<td>0.76</td>
<td>99.24</td>
</tr>
<tr>
<td>5</td>
<td>85</td>
<td>11.7</td>
<td>7.22</td>
<td>7.22</td>
<td>92.78</td>
</tr>
<tr>
<td>6</td>
<td>85</td>
<td>15.3</td>
<td>1.58</td>
<td>1.58</td>
<td>98.42</td>
</tr>
<tr>
<td>7</td>
<td>85</td>
<td>19.6</td>
<td>0.38</td>
<td>0.38</td>
<td>99.62</td>
</tr>
<tr>
<td>8</td>
<td>85</td>
<td>16.5</td>
<td>0.75</td>
<td>0.75</td>
<td>99.25</td>
</tr>
<tr>
<td>9</td>
<td>85</td>
<td>15.8</td>
<td>0.49</td>
<td>0.49</td>
<td>99.51</td>
</tr>
<tr>
<td>10</td>
<td>85</td>
<td>15.0</td>
<td>0.56</td>
<td>0.56</td>
<td>99.44</td>
</tr>
</tbody>
</table>

Minimum Filter Efficiency: 92.78  Maximum Filter Efficiency: 99.62

- 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.
TechnoWeb Surgical Mask is intended to be worn by operating room personnel during surgical procedures to protect both the surgical patient and the operating room personnel from transfer of microorganisms, body fluids, and particulate material.

**How to use:**
Wear the mask to cover your nose and chin. Hook each strap over your ear to lock them in place. Press the nose piece with fingers of both hands so that mask makes a snug fit around contours of your face.
Press entire mask over your face with both hands to insure there is no air leakage.

**Precautions for use:**
Make sure not to place any material inside the respirator.
Do not use if contaminated.
Do not wash. This respirator is disposable.
Do not touch the surface of respirator after wearing.

**Product name:** TechnoWeb Surgical Mask
**Type of Mask:** N95 with Nanotec Fiber
**Quantity:** 1 piece
**Storage:** Store between 1 and 30°C

**Distributed by:** BiotechInnova, Inc.
Made in South Korea By Finetex EnE, Inc. (Lime Co., Ltd.)
NPPTL COVID-19 Response: International Respirator Assessment
NPPTL COVID-19 Response: International Respirator Assessment