

NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Huizhou Jiahe Cube Technology Co., Ltd.

Model Tested: KN95 Protective Mask (Non-Medical)

Date Tested: June 18, 2020

These findings pertain to the Huizhou Jiahe Cube Technology Co., Ltd., KN95 Protective 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).

Thirty respirators were submitted for evaluation. The respirators were sampled into groups of ten 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 91.50% and 42.50%, respectively. All thirty 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 \(during known shortages\)](#).

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: June 18, 2020

Report Prepared: June 19, 2020

Manufacturer: Huizhou Jiahe Cube Technology Co., Ltd.

Item Tested: KN95 Protective Mask (Non-Medical) (Sample Group 1 of 3)

Country of Certification: China (GB2626-2006)

Pictures have been added to the end of this report.

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
1	85	5.8	16.6	16.6	83.40
2	85	9.5	13.1	13.1	86.90
3	85	10.8	12.6	12.6	87.40
4	85	7.5	11.7	11.7	88.30
5	85	9.0	57.1	57.5	42.50
6	85	12.9	40.3	40.3	59.70
7	85	9.9	8.5	8.5	91.50
8	85	8.0	9.5	9.5	90.50
9	85	12.6	10.3	10.3	89.70
10	85	8.5	15.6	15.6	84.40
Minimum Filter Efficiency: 42.50			Maximum Filter Efficiency: 91.50		

- 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

Test: Modified TEB-APR-STP-0059

Date Tested: June 18, 2020

Report Prepared: June 19, 2020

Manufacturer: Huizhou Jiahe Cube Technology Co., Ltd.

Item Tested: KN95 Protective Mask (Non-Medical) (Sample Group 2 of 3)

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
11	85	8.7	10.1	10.1	89.90
12	85	8.7	11.5	11.5	88.50
13	85	10.1	44.0	44.0	56.00
14	85	6.6	11.8	11.8	88.20
15	85	8.6	8.7	8.7	91.30
16	85	8.7	9.2	9.2	90.80
17	85	11.8	10.0	10.0	90.00
18	85	11.2	10.5	10.5	89.50
19	85	8.7	11.3	11.3	88.70
20	85	6.8	55.2	55.8	44.20
Minimum Filter Efficiency: 44.20			Maximum Filter Efficiency: 91.30		

- 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

Test: Modified TEB-APR-STP-0059

Date Tested: June 18, 2020

Report Prepared: June 19, 2020

Manufacturer: Huizhou Jiahe Cube Technology Co., Ltd.

Item Tested: KN95 Protective Mask (Non-Medical) (Sample Group 3 of 3)

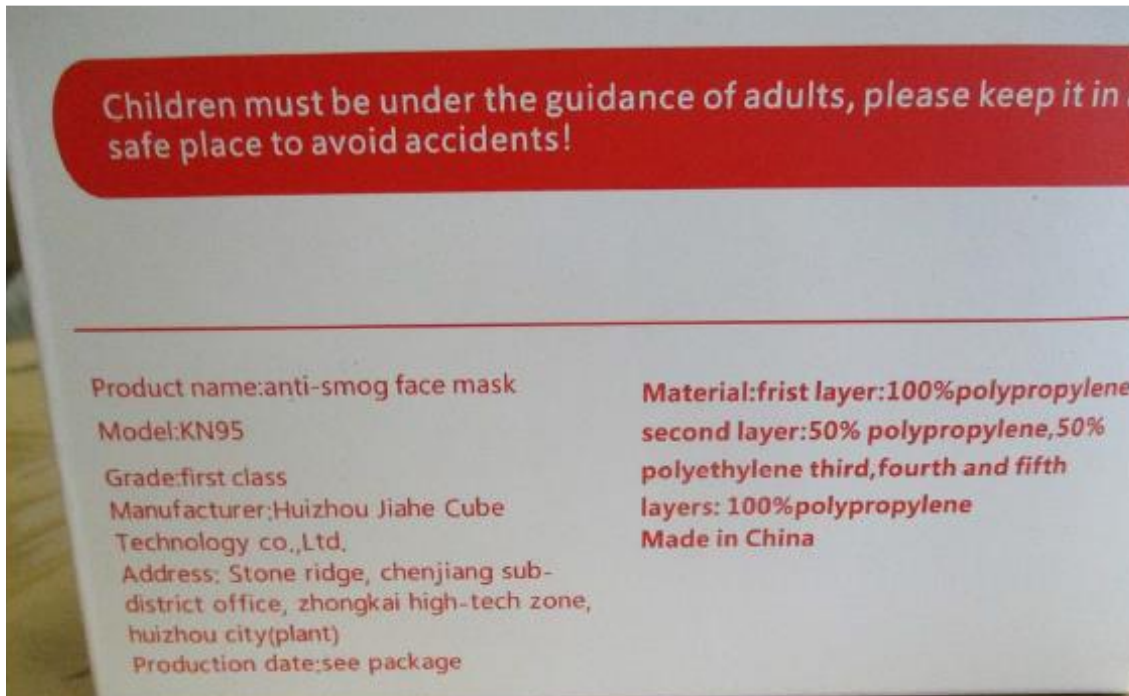
Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
21	85	7.5	10.7	10.7	89.30
22	85	5.7	32.0	35.8	64.20
23	85	9.5	16.2	16.2	83.80
24	85	9.5	8.5	8.5	91.50
25	85	8.0	12.2	12.2	87.80
26	85	6.2	19.8	19.8	80.20
27	85	8.8	13.3	13.3	86.70
28	85	6.2	19.0	19.0	81.00
29	85	9.7	10.0	10.0	90.00
30	85	7.7	19.2	19.2	80.80
Minimum Filter Efficiency: 64.20			Maximum Filter Efficiency: 91.50		

- 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



KN95 respirator instructions

GB 2626-2006 KN95

(please refer to the instructions on or inside the product packaging box)

Warning:

Users must be trained and read all instructions. Misuse can lead to injury and serious or life-threatening illness. Product to prevent particle and microorganism breathing respirators, meet the requirements of GB 2626-2006 standard. Can only be used for solid and non-volatile liquid particles protection. This product can be protective concentration of not more than 10 times the occupational exposure limit of some particles. When used in China, according to KN95 certification, the protective respirators are not recognize certificate for oily particles.

Warnings and restrictions on use

- In any case, please confirm that the complete product can: a) be suitable for application; B) wear it correctly; C) wear it during exposure; D) replacement if necessary.
 - In order to make our products can help the wearer protection some air pollutants, must do the right choice, training, use and proper maintenance. Not all in accordance with the instructions to use these respiratory protective equipment, or did not wear a complete products in all exposure time, would constitute a bad influence to the wearer's health, causing serious or life-threatening disease or permanent disability.
 - For information on the suitability and proper use of the product, please comply with local regulations and refer to all information provided by the supplier. For more information, please contact our customer service staff.
 - wearers must be trained to use the complete product in accordance with applicable occupational health and safety standards/guidelines before use.
 - This product does not protect against gas/steam.
 - Cannot be used in environments with oxygen concentration below 19.5%.
 - Cannot be used for inhalation protection in environments where air pollutant/concentration is unknown or where immediate life - and health-threatening (IDLH) concentrations are achieved.
 - Do not use facial hair or other facial hair when it may interfere with a good fit between the face and the product.
 - Cannot be used in flammable or explosive environments.
- Leave the contaminated area immediately if: a) respiratory distress • b) dizziness or other discomfort occurs. Discard and replace the respirator when damaged, respiratory resistance increases significantly, or at the end of a shift.
- This product cannot be changed, modified or repaired at any time.

NPPTL COVID-19 Response: International Respirator Assessment

All parts of the respirator should be inspected for damage before each use.

Wear instructions: before wearing, make sure your hands are clean.

1. Hold the mask in one hand with the nose clip at the tip of your finger, facing up, and hold your chin against the mask.
2. With the other hand, place the ear strap in the same direction.
3. Gently hold the mask with the other hand, release the hand that held the mask before, and with this hand hang the elastic band of the other ear sling in the same direction of the ear.
4. Use both hands and shape the clip according to the bridge of the nose to ensure a good sealing effect.
5. Check the air tightness of the respirator before entering the workplace.

Wear air tightness check

1. With both hands in front of the mask, should be careful to avoid affecting the safety of the mask.
2. For the non-valve respirator - rapid exhalation;
3. If there is air leakage around the nose, readjust the nose clip to eliminate the leakage.
4. If you can't get a good seal, please do not enter the dangerous area.
5. The user shall carry out the suitability test according to the national regulations.

Storage and transportation

When the storage temperature is from -20°C to $+25^{\circ}\text{C}$ and the relative humidity is less than 80%, the storage period of this product is five years from the date of production.

Storage and transportation

Note: the average condition may exceed $25^{\circ}\text{C}/80\%$ relative humidity for a limited time. The storage condition can reach the average $38^{\circ}\text{C} / 85\%$ relative humidity, provided that the storage time is not more than 3 months, and within the mask storage period.

Before starting to use, please make sure that the product is within the specified shelf life. Please use the original packaging for storage or transportation.

Tag

R= reusable;

These products contain no natural rubber ingredients.

Huizhou jiahe cube technology co. LTD

Shiziling (factory), chenjiang sub-district office, zhongkai High-tech zone, huizhou city

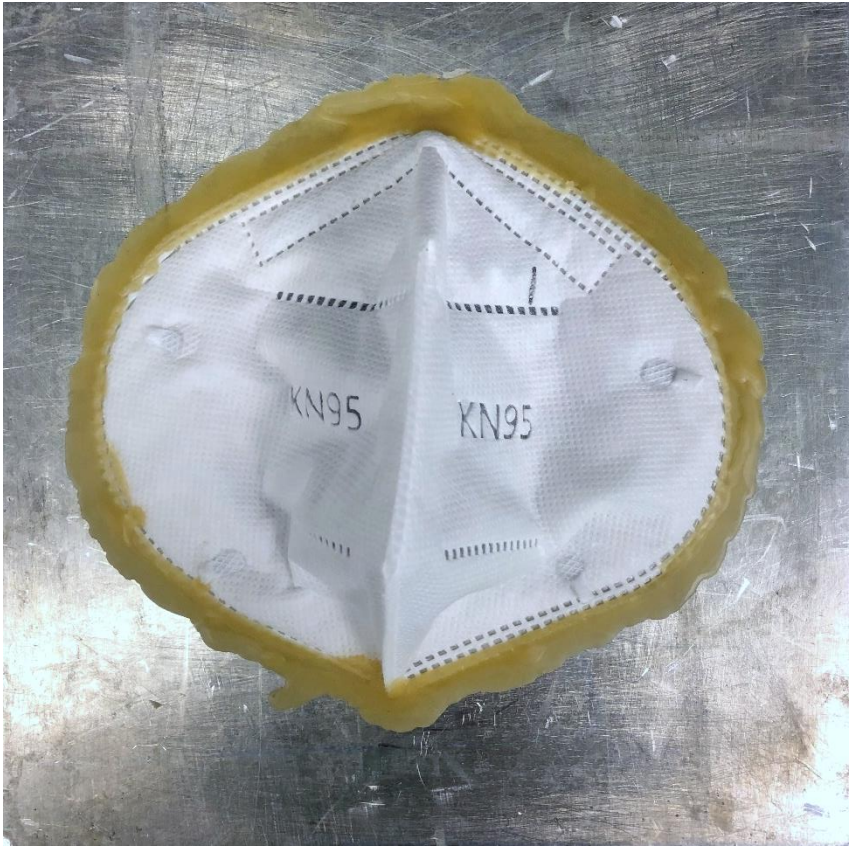
NPPTL COVID-19 Response: International Respirator Assessment



NPPTL COVID-19 Response: International Respirator Assessment



NPPTL COVID-19 Response: International Respirator Assessment



NPPTL COVID-19 Response: International Respirator Assessment

