

## NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Shantou Rainbow Textile Co., Ltd.

Model Tested: 2626-1

Date Tested: October 13, 2020

These findings pertain to the Shantou Rainbow Textile Co., Ltd., model 2626-1. The packaging for this product indicates that it meets GB2626-2006 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator) and EN149:2001+A1:2009 (the European standard for Respiratory Protective Devices – Filtering Half Masks to Protect Against Particles – Requirements, Testing, Marking). NOTE: A packaging sheet lists the manufacturer as Shantou Rainbow Weaving Co., Ltd.

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 99.22% and 86.60%, respectively. Seven respirators measured more than 95%. Three 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 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 \(during known shortages\)](#).

## Evaluation of International Respirators

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

**Date Tested:** October 13, 2020

**Report Prepared:** October 13, 2020

**Manufacturer:** Shantou Rainbow Textile Co., Ltd.

**Item Tested:** 2626-1

**Country of Certification:** China (GB2626-2006), European (EN149:2001+A1:2009)

Pictures have been added to the end of this report.

Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH <sub>2</sub> O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
1	85	8.2	13.4	13.4	86.60
2	85	8.2	13.1	13.1	86.90
3	85	7.0	11.1	11.1	88.90
4	85	14.2	1.86	1.86	98.14
5	85	12.1	2.24	2.24	97.76
6	85	11.9	1.55	1.55	98.45
7	85	16.4	0.78	0.78	99.22
8	85	11.6	2.46	2.46	97.54
9	85	12.0	1.59	1.59	98.41
10	85	14.8	0.99	0.99	99.01
<b>Minimum Filter Efficiency: 86.60%</b>			<b>Maximum Filter Efficiency: 99.22%</b>		

- 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.

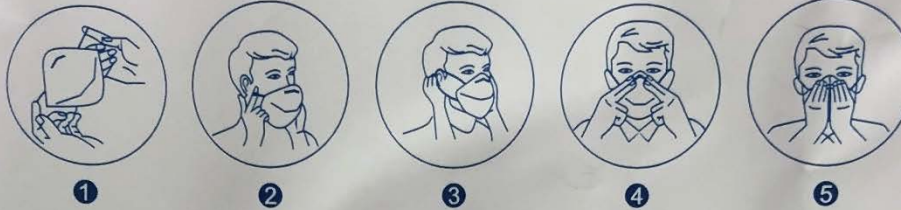




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## Product performance:

1. PP spunbond non-woven fabric, high-efficiency electrostatic electret melt blown fabric, ES hot air cotton non-woven fabric are used to form a high-efficiency filter layer, which is more effective in filtering protective particles. The filter rate  $\geq 95\%$  meets gb2626-2006 kn95 standard.
2. 3D three-dimensional shape is designed according to human face shape engineering to ensure the tightness, increase the breathing volume of the mask, greatly improve the permeability, and make wearing and exhaling more comfortable.



## Wearing method:

1. Face to the side of a mask with the nose clip, place the nose clip above the mask. Hold the mask against your chin with your hand.
2. Pull the ear straps to the back of the ears with both hands until you feel comfortable.
3. Place the fingers of both hands in the middle of the nose clip; while pressing inwards, move the fingertips along the nose clip to both sides, and press the nose clip into the shape of nose bridge completely. Pinching the nose clip with one hand may affect the tightness of the mask.
4. Before entering the working area, the user must check the tightness of the mask to the face.

## Scope of application:

It is suitable to keep users from PM2.5 haze particles, food, chemicals, coal dust, cement dust, metal, smelting and processing manufacturing industries. This product is windproof and cold proof.


Validity: 3 years    Production date: see the seal

Grade: KN95    Model: 2626-1

Executive standard: GB2626-2006 KN95

Storage conditions: a well-ventilated, clean room with humidity  $< 80\%$ , no corrosive gas

Specification: foldable (for adult)

 it is very important to press the nose clip of the mask firmly against the bridge of the nose to form a good fit with the nose.

## Attention:

The mask should be kept as flat as possible after use, and the bridge of nose above the mask should not be folded frequently to prolong the service time.

It is not recommended to wear when air is not smooth, breathing is not smooth or during sleep.

Children under three years old are not recommended to put on because of their low vital capacity.

Manufacturer: Shantou Rainbow Textile Co., Ltd.  
Address: Xiamenkou Huyang, Shangxi Village, Xiashan Street, Chaonan District, Shantou Province  
Tel: 0754-8211777    E-mail: tieshenmima@126.com



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