

NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Zhongkang Protective Equipment Technology (Guangzhou) Co., Ltd.

Model Tested: ZK601

Date Tested: June 19, 2020

These findings pertain to the Zhongkang Protective Equipment Technology (Guangzhou) Co., Ltd., model ZK601. The packaging and labeling 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 100.00% and 99.65%, respectively. All thirty 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 19, 2020

Report Prepared: June 20, 2020

Manufacturer: Zhongkang Protective Equipment Technology (Guangzhou) Co., Ltd.

Item Tested: ZK601 (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	18.0	0.10	0.10	99.90
2	85	19.1	0.06	0.06	99.94
3	85	19.1	0.08	0.08	99.92
4	85	15.4	0.05	0.05	99.95
5	85	20.0	0.00	0.00	100.00
6	85	18.6	0.10	0.10	99.90
7	85	17.9	0.35	0.35	99.65
8	85	17.9	0.07	0.07	99.93
9	85	17.6	0.09	0.09	99.91
10	85	20.2	0.14	0.14	99.86
Minimum Filter Efficiency: 99.65			Maximum Filter Efficiency: 100.00		

- 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 19, 2020

Report Prepared: June 20, 2020

Manufacturer: Zhongkang Protective Equipment Technology (Guangzhou) Co., Ltd.

Item Tested: ZK601 (Sample Group 2 of 3)

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH₂O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
11	85	16.0	0.06	0.06	99.94
12	85	16.2	0.08	0.08	99.92
13	85	16.2	0.09	0.09	99.91
14	85	15.5	0.07	0.07	99.93
15	85	18.0	0.17	0.17	99.83
16	85	17.7	0.24	0.24	99.76
17	85	17.7	0.09	0.09	99.91
18	85	18.7	0.11	0.11	99.89
19	85	16.2	0.06	0.06	99.94
20	85	18.5	0.09	0.09	99.91
Minimum Filter Efficiency: 99.76			Maximum Filter Efficiency: 99.94		

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Test: Modified TEB-APR-STP-0059

Date Tested: June 19, 2020

Report Prepared: June 20, 2020

Manufacturer: Zhongkang Protective Equipment Technology (Guangzhou) Co., Ltd.

Item Tested: ZK601 (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	18.3	0.07	0.07	99.93
22	85	17.0	0.13	0.13	99.87
23	85	17.3	0.13	0.13	99.87
24	85	20.0	0.09	0.09	99.91
25	85	19.4	0.16	0.16	99.84
26	85	15.9	0.04	0.04	99.96
27	85	16.0	0.19	0.19	99.81
28	85	17.7	0.21	0.21	99.79
29	85	18.0	0.16	0.16	99.84
30	85	20.7	0.05	0.05	99.95
Minimum Filter Efficiency: 99.79			Maximum Filter Efficiency: 99.96		

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Wearing instructions



1. Open the mask and pull the ear straps with both hands and make sure the nose clip is above the mask.
2. Cover your chin with the mask.
3. Pull the ear strap behind your ear and adjust the ear strap to feel as comfortable as possible.
4. Adjust the tightness of the mask according to the face shape, press the nose clip to adjust the tightness of the mask with both hands, and check the tightness of the mask by exhaling.

Precautions

1. Check the mask for any possible damage and deformation before wearing.
2. For bearded wearers, clean the beard before wearing.
3. Take off the mask immediately or replace it in case of breathing difficulty.

Product name: Respiratory protective device-Filtering half mask
Material: 50gsm melt blown fabric, PP non-woven fabric.Stretch nylon
Production license number :(Guangdong) XK02-001-00156
Expiration date of the mask: 5 years

Storage conditions and expiration dates.
Storage temperature is within the range of -20 °C + 30 °C and
the relative humidity is not higher than 80% for unopened product.

Manufacturer:
Zhongkang Protective Equipment Technology(Guangzhou) Co.,Ltd
Address: 3/F, Building A, No. 88 West Dagang Street, Baiyunhu Road,
Baiyun District, Guangzhou, Guangdong Province, China

Exporter: YiWu Beyond Trading Co., Ltd
Address: 5/F, Building A, No. 7 Chuantang Road,
Liuqing Industrial District, Beiyuan, Yiwu City,
Zhejiang Province, China

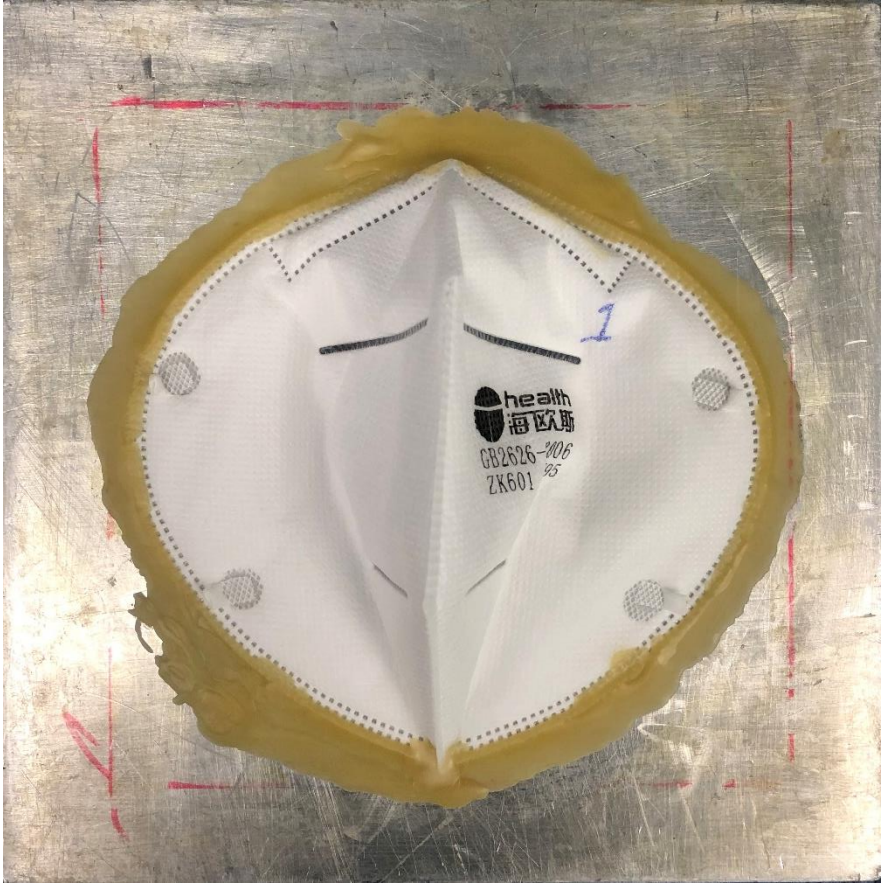
Model: ZK601
LOT: 20200416
MFD: 16/04/2020



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