#### NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Shenzhen Crawford Technology Co., Ltd.

Model Tested: XO-01 Date Tested: July 28, 2020

These findings pertain to the Shenzhen Crawford Technology Co., Ltd., model XO-01. 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 88.10% and 35.00%, respectively. All ten 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 <u>Crisis Capacity Strategies (during known shortages)</u>.

### **Evaluation of International Respirators**



Pictures have been added to the

end of this report.

Test: Modified TEB-APR-STP-0059

Date Tested: July 28, 2020

Report Prepared: July 28, 2020

Manufacturer: Shenzhen Crawford Technology Co., Ltd.

Item Tested: XO-01

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH₂O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency	
1	85	8.1	11.9	11.9	88.10	
2	85	4.1	61.2	65.0	35.00	
3	85	4.0	21.1	21.1	78.90	
4	85	3.6	34.9	36.8	63.20	
5	85	9.6	50.4	50.4	49.60	
6	85	6.9	62.7	62.7	37.30	
7	85	9.4	57.7	57.7	42.30	
8	85	4.5	61.2	63.9	36.10	
9	85	5.0	59.2	59.2	40.80	
10	85	10.5	55.0	55.0	45.00	
	Minimum Filter Eff	iciency: 35.00	Maxim	Maximum Filter Efficiency: 88.10		

- 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.





# KN95 FACE











- Open the mask smoothly
- 2. Face to face of the mask without a nose clip so that the nose clip is above the mask
- 3. Pull the belt behind the ear
- 4. The middle part of the nose clip, press inward from the middle to both sides according to the strip shape of the nose beam until it is completely pressed into the shape of the nose beam, only one hand pinch of the mask pen clip may affect the tightness of the mask
- 5. Before entering the work area , must check the tightness of the mask and face

Model:XO-01 Executive Company: Crawford Technology (HK) CO.,Ltd Manufacture: Shenzhen Crawford Technology Co.,Ltd

Executive Standard: GB2626-2006 Production date: 2020.04.14

Valid until:2023.04.14

#### ATTENTIONS:

- 1. Wash your hands according to the rules before wearing the mask, and avoid touching the inside of the mask when wearing it.
- 2. The mask must be replaced in time if it is dirty, deformed, damaged, or has an unusual smell.
- 3. The masks should be stored separately to avoid contact with each other and identify the users of the masks.
- 4.masks can not be disinfected with disinfectants, heating and other methods

#### CRAWFORD TECHNOLOGY (HK) CO.,LTD

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The picture is only for reference,please make the object as the standard.



























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