

NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: BYD Precision Manufacture Co., Ltd.

Model Tested: DE2322

Date Tested: June 1, 2021

These findings pertain to the BYD Precision Manufacture Co., Ltd., model DE2322. The labeling indicates that it is a NIOSH-approved product, under approval number TC-84A-9221. The packaging for this product also indicates that it meets GB19083-2010 (the Chinese standard for Technical Requirements for Protective Face Mask for Medical Use).

Thirty 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](#).

The maximum and minimum filter efficiency was 98.96% and 84.26%, respectively. Twenty respirators measured 95% or more. Ten respirators measured less than 95%.

This product has head bands/straps. 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: June 1, 2021

Report Prepared: June 1, 2021

Manufacturer: BYD Precision Manufacture Co., Ltd.

Item Tested: DE2322

Country of Certification: China (GB19083-2010); USA (42 CFR 84)

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	12.3	1.62	1.62	98.38
2	85	14.1	15.74	15.74	84.26
3	85	16.4	3.60	3.60	96.40
4	85	13.4	2.13	2.13	97.87
5	85	12.8	1.61	1.61	98.39
6	85	10.8	4.17	4.17	95.83
7	85	14.7	6.54	6.54	93.46
8	85	12.2	1.21	1.21	98.79
9	85	13.1	7.57	7.57	92.43
10	85	11.0	1.95	1.96	98.04
Minimum Filter Efficiency: 84.26			Maximum Filter Efficiency: 98.79		

- 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.

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: June 1, 2021

Report Prepared: June 1, 2021

Manufacturer: BYD Precision Manufacture Co., Ltd.

Item Tested: DE2322

Country of Certification: China (GB19083-2010); USA (42 CFR 84)

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
11	85	16.3	2.58	2.58	97.42
12	85	15.5	7.36	7.36	92.64
13	85	14.9	12.30	12.30	87.70
14	85	11.6	9.63	9.71	90.29
15	85	13.7	2.75	2.75	97.25
16	85	15.5	5.49	5.49	94.51
17	85	17.5	1.76	1.76	98.24
18	85	13.3	2.07	2.07	97.93
19	85	12.6	2.27	2.27	97.73
20	85	12.2	8.63	8.72	91.28
Minimum Filter Efficiency: 87.70			Maximum Filter Efficiency: 98.24		

- 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.

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: June 1, 2021

Report Prepared: June 1, 2021

Manufacturer: BYD Precision Manufacture Co., Ltd.

Item Tested: DE2322

Country of Certification: China (GB19083-2010); USA (42 CFR 84)

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
21	85	14.9	2.59	2.59	97.41
22	85	17.3	1.43	1.43	98.57
23	85	14.2	2.27	2.27	97.73
24	85	15.5	2.28	2.28	97.72
25	85	15.7	2.63	2.63	97.37
26	85	13.8	3.18	3.21	96.79
27	85	14.7	7.43	7.43	92.57
28	85	14.7	2.17	2.17	97.83
29	85	13.3	5.16	5.21	94.79
30	85	16.9	1.04	1.04	98.96
Minimum Filter Efficiency: 92.57			Maximum Filter Efficiency: 98.96		

- 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.

合格证 QUALITY CERTIFICATE

产品名称: 医用防护口罩

Product Name: N95 Particulate Respirator

型号: DE2322 (折叠式)

Model No.: DE2322 (Foldable)

规格: 15.6cm×10.8cm

Specifications: 15.6cm×10.8cm

数量: 20 pcs/box

Quantity: 20 pcs/box

执行标准: GB 19083-2010

Standard: GB 19083-2010

生产批次: 见外包装

LOT: See the external packaging

生产日期: 见外包装

Production Date: See the external packaging

使用期限: 2年

Expiration Date: 2 years after production

检验代号: 见印章

Inspector: See stamp

主要成分: 无纺布57% (含内层无纺布, 中层熔喷无纺布, 外层无纺布); 热风棉17.6%; 涤纶氨纶混纺16.5%; 金属8.9%

Main Materials: Polypropylene spunbond nonwoven 57% (Including inner layer polypropylene spunbond nonwoven fabric, middle layer polypropylene melt-blown nonwoven, outer layer polypropylene spunbond nonwoven fabric); Hot air cotton 17.6%; Polyester/nylon spandex blend 16.5%; Metal 8.9%

比亚迪精密制造有限公司

深圳市龙岗区龙岗街道宝龙工业城宝荷路3001号

BYD Precision Manufacture Co., Ltd.

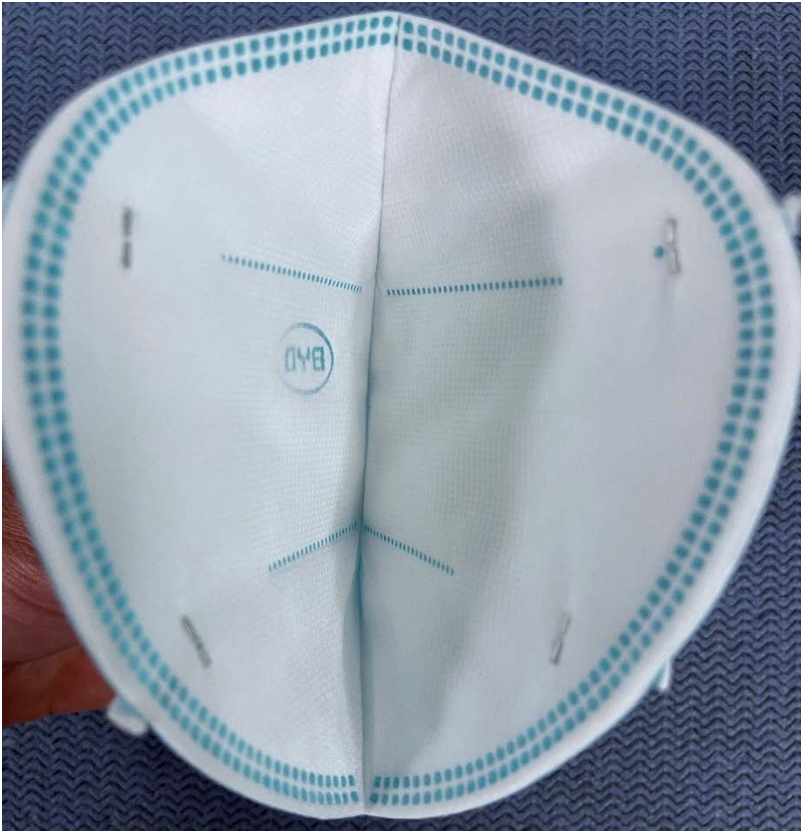
No.3001 Baohe Road, Baolong Industrial City,
LongGang Street, LongGang District, Shenzhen,
GuangDong Province, China

PASS
OQC-015

NPPTL COVID-19 Response: International Respirator Assessment



NPPTL COVID-19 Response: International Respirator Assessment



NPPTL COVID-19 Response: International Respirator Assessment

