NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Shandong Shengquan New Materials Co., Ltd.
Model Tested: Biomass Graphene Particulate Respirator (C-Shaped)
Date Tested: June 9, 2020

These findings pertain to the Shandong Shengquan New Materials Co., Ltd., Biomass Graphene Particulate Respirator (C-Shaped). The packaging and labeling for this product indicate 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).

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 99.30% and 96.52%, 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

NPPTL
National Personal Protective Technology Laboratory

Test: Modified TEB-APR-STP-0059

Date Tested: June 9, 2020

Report Prepared: June 10, 2020

Pictures have been added to the end of this report.

Manufacturer: Shandong Shengquan New Materials Co., Ltd.

Item Tested: Biomass Graphene Particulate Respirator (C-Shaped) (Sample Group 1 of 3)

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH_2O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
1	85	11.4	2.73	2.73	97.27
2	85	11.5	2.95	2.95	97.05
3	85	12.1	1.97	1.97	98.03
4	85	12.7	2.13	2.13	97.87
5	85	12.3	2.49	2.49	97.51
6	85	12.5	2.09	2.09	97.91
7	85	13.3	1.80	1.80	98.20
8	85	14.5	2.02	2.02	97.98
9	85	13.1	2.85	2.85	97.15
10	85	16.6	0.70	0.70	99.30
Minimum Filter Efficiency: 97.05			**Maximum Filter Efficiency: 99.30**		

- 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 9, 2020

Report Prepared: June 10, 2020

Manufacturer: Shandong Shengquan New Materials Co., Ltd.

Item Tested: Biomass Graphene Particulate Respirator (C-Shaped) (Sample Group 2 of 3)

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH_2O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
11	85	11.7	2.21	2.21	97.79
12	85	14.4	1.34	1.34	98.66
13	85	11.6	2.71	2.71	97.29
14	85	12.5	2.43	2.43	97.57
15	85	14.8	1.36	1.36	98.64
16	85	12.9	2.19	2.19	97.81
17	85	14.7	2.10	2.10	97.90
18	85	12.3	2.75	2.75	97.25
19	85	14.0	2.71	2.71	97.29
20	85	13.9	1.40	1.40	98.60
Minimum Filter Efficiency: 97.25			**Maximum Filter Efficiency: 98.66**		

- 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.
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NPPTL COVID-19 Response: International Respirator Assessment

Test: Modified TEB-APR-STP-0059

Date Tested: June 9, 2020

Report Prepared: June 10, 2020

Manufacturer: Shandong Shengquan New Materials Co., Ltd.

Item Tested: Biomass Graphene Particulate Respirator (C-Shaped) (Sample Group 3 of 3)

Country of Certification: China (GB2626-2006)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH_2O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
21	85	13.7	1.71	1.71	98.29
22	85	16.0	1.08	1.08	98.92
23	85	11.4	3.48	3.48	96.52
24	85	16.0	1.27	1.27	98.73
25	85	14.8	1.42	1.42	98.58
26	85	15.4	1.45	1.45	98.55
27	85	16.4	1.44	1.44	98.56
28	85	11.0	2.39	2.39	97.61
29	85	14.8	2.87	2.87	97.13
30	85	12.8	2.60	2.60	97.40
Minimum Filter Efficiency: 96.52			**Maximum Filter Efficiency: 99.30**		

- 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.
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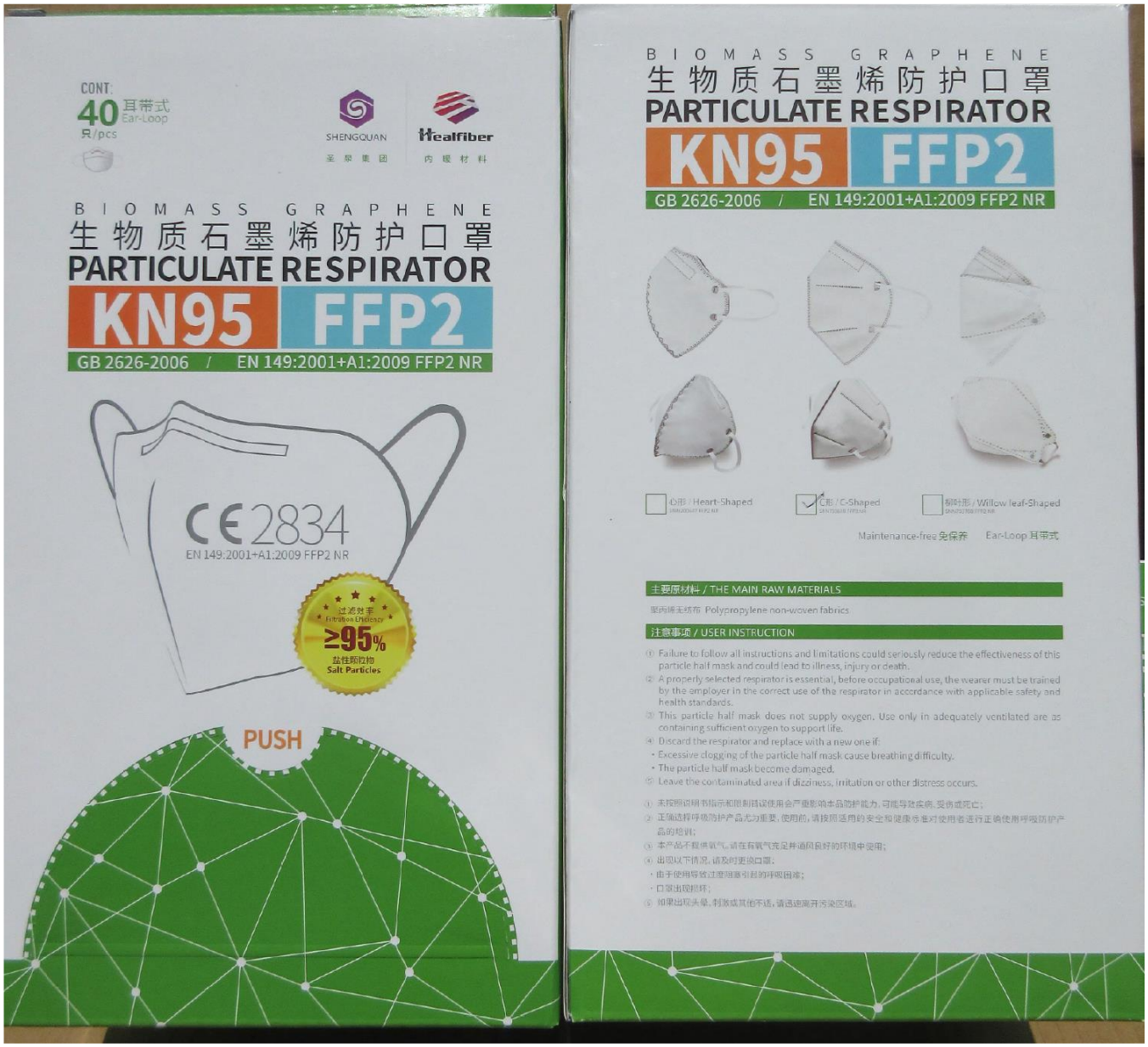
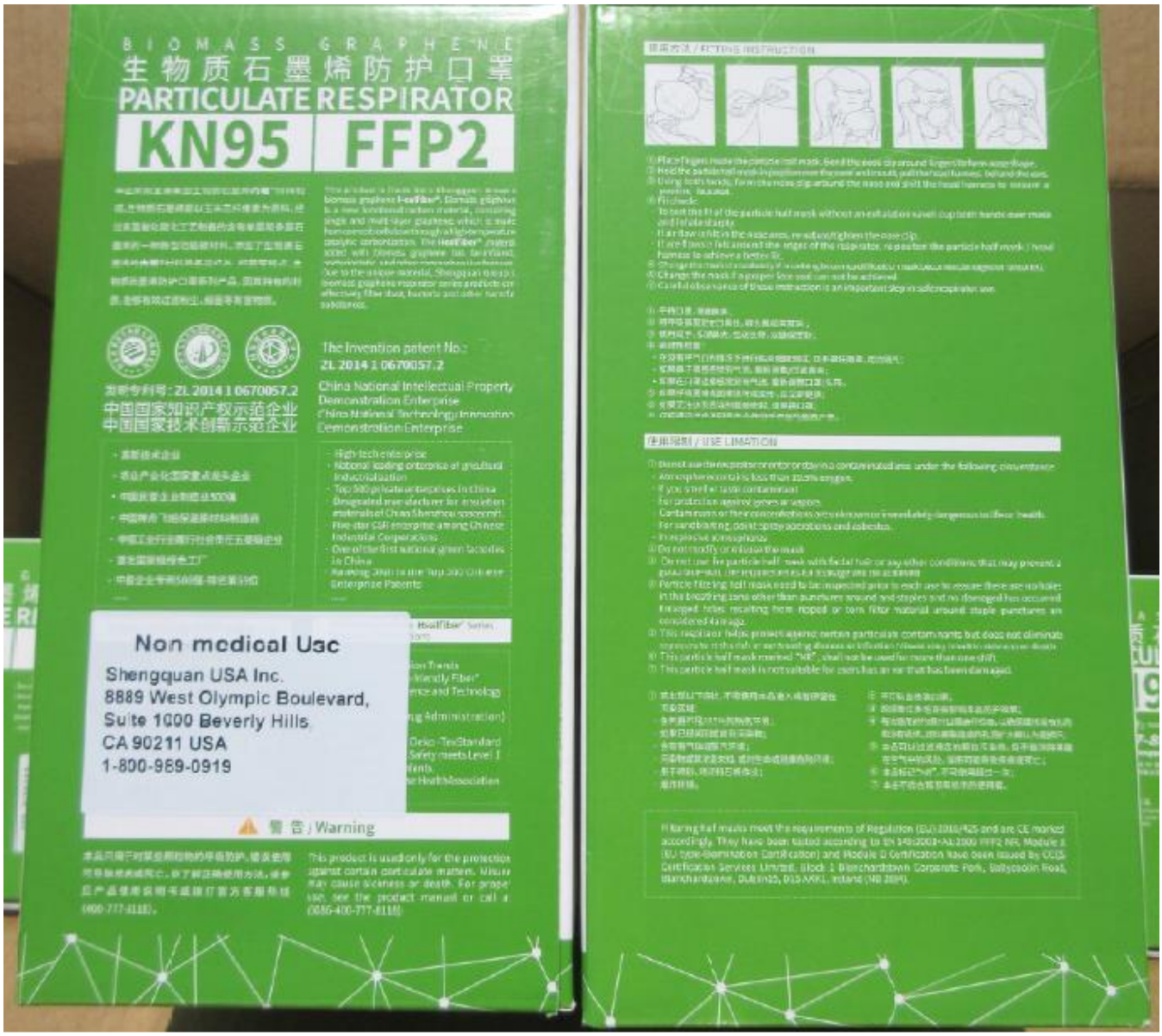

CONT:
40 耳带式 Ear-Loop
只/pcs
SHENGQUAN
圣泉集团
Healfiber
内暖材料
BIOMASS GRAPHENE
生物质石墨烯防护口罩
PARTICULATE RESPIRATOR
KN95 FFP2
GB 2626-2006 / EN 149:2001+A1:2009 FFP2 NR
CE 2834
EN 149:2001+A1:2009 FFP2 NR
过滤效率 Filtration Efficiency
≥95%
盐性颗粒物 Salt Particles
PUSH
BIOMASS GRAPHENE
生物质石墨烯防护口罩
PARTICULATE RESPIRATOR
KN95 FFP2
GB 2626-2006 / EN 149:2001+A1:2009 FFP2 NR
心形 / Heart-Shaped
飞形 / C-Shaped
柳叶形 / Willow leaf-Shaped
Maintenance-free 免保养
Ear-Loop 耳带式
主要原材料 / THE MAIN RAW MATERIALS
聚丙烯无纺布 Polypropylene non-woven fabrics
注意事项 / USER INSTRUCTION
① Failure to follow all instructions and limitations could seriously reduce the effectiveness of this particle half mask and could lead to illness, injury or death.
② A properly selected respirator is essential, before occupational use, the wearer must be trained by the employer in the correct use of the respirator in accordance with applicable safety and health standards.
③ This particle half mask does not supply oxygen. Use only in adequately ventilated are as containing sufficient oxygen to support life.
④ Discard the respirator and replace with a new one if:
• Excessive clogging of the particle half mask cause breathing difficulty.
• The particle half mask become damaged.
⑤ Leave the contaminated area if dizziness, irritation or other distress occurs.
① 未按照说明书指示和限制建议使用会严重影响本品防护能力，可能导致疾病，受伤或死亡；
② 正确选择呼吸防护产品尤为重要，使用前，请按照适用的安全和健康标准对使用者进行正确使用呼吸防护产品的培训；
③ 本产品不提供氧气，请在有氧气充足并通风良好的环境中使用；
④ 出现以下情况，请及时更换口罩：
• 由于使用导致过度阻塞引起的呼吸困难；
• 口罩出现损坏；
⑤ 如果出现头晕，刺激或其他不适，请迅速离开污染区域。


BIOMASS GRAPHENE
生物质石墨烯防护口罩
PARTICULATE RESPIRATOR
KN95 FFP2
The Invention patent No.:
ZL 2014 1 0670057.2
China National Intellectual Property Demonstration Enterprise
中国国家知识产权示范企业
中国国家技术创新示范企业
Non medical Use
Shengquan USA Inc.
8889 West Olympic Boulevard,
Suite 1000 Beverly Hills
CA 90211 USA
1-800-969-0919
Warning
This product is used only for the protection against certain particulate matters. Misuse may cause sickness or death. For proper use, see the product manual or call 1 (888)-400-777-8118.
FITTING INSTRUCTION
USE LIMITATION


BIOMASS GRAPHENE
生物质石墨烯防护口罩
PARTICULATE RESPIRATOR
KN95
FFP2
服务热线：
400-777-8118
www.shengquan.com
【制造商】:山东圣泉新材料股份有限公司
【地 址】:中国山东省济南市章丘区刁镇工业开发区
【Service Hotline】: 0086-400-777-8118
【Manufacturer】: Shandong Shengquan New Materials Co., Ltd.
【Address】: Diaozhen Industrial development zone, Zhangqiu, Jinan, China.
扫码防伪 / 一盒一码 / 品质追溯
Scan the QR code to check the product genuine or not.One box one security code. The Quality can be traced.
Qualified Certificate
Product Code: SNN70369B
Product Name: Biomass Graphene Protective Respirator (C Shaped)
Color: White
Size：16.5*10.5cm
Safety Class：Class B
Executive Standard : GB2626-2006 KN95
Main Raw Materials: Polypropylene Nonwoven Fabrics
Batch No: W20416D008
Production Date:19.04.2020
Shandong Shengquan New Materials Co., Ltd.
Diaozhen Industrial Development Zone, Zhangqiu District, Jinan, Shandong, China.
6 970929 720096

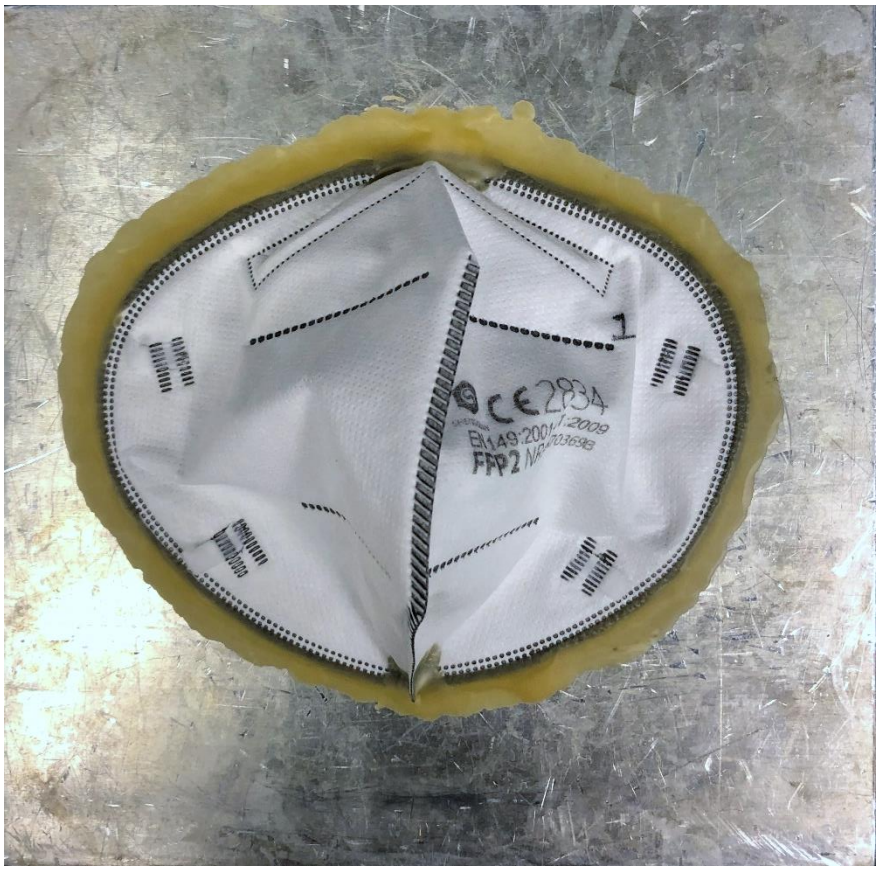

SHENGQUAN
Healfiber
BIOMASS GRAPHENE
生物质石墨烯防护口罩
PARTICULATE RESPIRATOR
KN95
FFP2
GB 2626-2006 / EN 149:2001+A1:2009 FFP2 NR
Filtration Efficiency
≥95%
Salt Particles
过滤效率
≥95%
盐性颗粒物
CE 2834


0086-400-777-8118
MADE IN CHINA
This product is made from Shengquan Group' s biomass graphene Healfiber®. Biomass graphene is a new functional carbon material, containing single and multi-layer graphene, which is made from corncob cellulose through a high-temperature catalytic carbonization. The Healfiber® material added with biomass graphene has far-infrared, bacteriostatic, and other comprehensive features. Due to the unique material, Shengquan Group' s biomass graphene respirator series products can effectively filter dust, bacteria and other harmful substances.
Filtering half masks meet the requirements of Regulation (EU) 2016/425 and are CE marked accordingly. They have been tested according to EN 149:2001+A1:2009 FFP2 NR. Module B (EU type-Examination Certification) and Module D Certification have been issued by CCQS Certification Services Limited, Block 1 Blanchardstown Corporate Park, Ballycoolin Road, Blanchardstown, Dublin15, D15 AKK1, Ireland (NB 2834).
Temperature range of storage conditions: -20℃ to + 30℃
温度范围：-20℃至+30℃
Maximum relative humidity of storage conditions: <90%
最大相对湿度：<80%
2023/04
Shelf Life:
3 years from date of manufacture
保存期限：自生产之日起3年
See information supplied by the manufacturer
参见生产商提供的信息
www.3path.com
The shortest is not the fastest
Direct purchase platform for epidemic prevention materials.
使用方法 / FITTING INSTRUCTION
▲ 警 告 / WARNING
本品只用于对某些颗粒物的呼吸防护。错误使用可导致疾病或死亡。欲了解正确使用方法，请参见产品使用说明或拨打官方客服热线：400-777-8118。
This product is used only for the protection against certain particulate matters. Misuse may cause sickness or death. For proper use, see the product manual or call at (0086-400-777-8118)
Manufacture: Shandong Shengquan New Materials Co., Ltd. / Address: Diaozhen Industrial development zone, Zhangqiu, Jinan, China.
Web: www.shengquan.com / E-mail: zacktang@shengquan.com


CE2834
EN 149:2001+A1:2009
FFP2 NR SNN703696


CE2834
EN 149:2001+A1:2009
FFP2 NR SNN703696

NPPTL COVID-19 Response: International Respirator Assessment



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