



Fiscal Year 2020

## CERTIFICATE OF FDA REGISTRATION

This certifies that:

**SHANDONG QINGZE NONWOVEN FABRIC PRODUCTS CO.,LTD.**

Gaoze Industrial Park,Wulian County

Rizhao, Shandong, 262313, CHINA

**DUNS Number:**

has completed the FDA Establishment Registration and Device Listing with the US Food & Drug Administration, through UCL-REG SERVICE INC.

**Owner/Operator Number: 10065379**

**Listing No.**  
D381270

**Product Code:**  
QKR

**Device Name:**

Face mask (except N95 respirator) for general public/healthcare personnel per IIE guidance  
Disposable Face Mask

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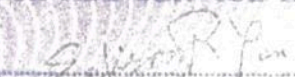
*Pursuant to 21 CFR 807.39, "Registration of a device establishment or assignment of a registration number does not in any way denote approval of the establishment or its products. Any representation that creates an impression of official approval because of registration or possession of a registration number is misleading and constitutes misbranding."*

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For and on behalf of  
**UCL-REG SERVICE INC.**

  
\_\_\_\_\_  
Author: (Signature)

Cert. No.: M20722  
Issued Date: 29 March 2020  
Expiration Date: 31 December 2020

| TEST REPORT<br>EN 14683<br>Medical face masks - Requirements and test methods |  |
|---|--|
| Report Reference No   | 20ZCTS0319011SP  |
| Tested by (+ signature)   | King Hu  |
| Approved by (+ signature)   | Kevin Yang   |
| Date of issue   | March 30, 2020   |
| Testing laboratory  | Shenzhen ZCT Technology Co., Ltd   |
| Address   | 3/F, Building 5, Hongsheng Industrial Zone, Bao'an Road, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China |
| Applicant's name  | Shandong Qingze Nonwoven Fabric Products Co., Ltd  |
| Address   | Gaoze Industrial Park, Wulian County, Rizhao City, Shandong Province, China  |
| Manufacturer's name   | Shandong Qingze Nonwoven Fabric Products Co., Ltd  |
| Address   | Gaoze Industrial Park, Wulian County, Rizhao City, Shandong Province, China  |
| Factory's name  | Same as manufacturer   |
| Address   |  |
| <b>Test specification:</b>  |  |
| Standard  | <input checked="" type="checkbox"/> EN 14683:2019  |
| Test procedure  | Commission test  |
| Non-standard test method  | N/A  |
| Test Report Form No.  | EN 14683   |
| TRF Originator  | SBD  |
| Master TRF  | Dated 2017-01  |
| Test item description   | Disposable Face Mask   |
| Trade Mark  | Multicolor Cutestar  |
| Model/Type reference  | Plane type   |
| Ratings   | Type IIR.  |



|  |                                  |
|--|----------------------------------|
| <b>Test item particulars:</b>  |                                  |
| <b>Test case verdicts:</b>   |                                  |
| Test case does not apply to the test object .....  | N/A                              |
| Test object does meet the requirement .....  | Pass (P)                         |
| Test object does not meet the requirement .....  | Fail (F)                         |
| <b>Testing:</b>  |                                  |
| Date of receipt of test item .....   | March 20, 2020                   |
| Date(s) of performance of test .....   | March 20, 2020 to March 30, 2020 |
| General remarks  |                                  |
| <p>The test results presented in this report relate only to the item(s) tested.</p> <p>This report shall not be reproduced, except in full, without the written approval of the testing laboratory.</p> <p>"(see remark #)" refers to a remark appended to the report.</p> <p>"(see Annex #)" refers to an annex appended to the report.</p> <p>"(see appended table)" refers to a table in the Test Report.</p> <p>Throughout this report a comma (point) is used as the decimal separator.</p> |                                  |

|   |            |
|---|------------|
| <b>Copy of marking plate</b>  |            |
| Disposable Face Mask<br>Model: Plane type<br>Shandong Qingze Nonwoven Fabric Products Co., Ltd.<br>Gaoze Industrial Park, Wulian County, Rizhao City, Shandong<br>Province, China | No marking |
| Remark on the marking plate:<br>1. The height of graphical symbols is not less than 5 mm;<br>2. The height of letters and numerals are not less than 2 mm                         |            |



| EN 14683 |  |                          |         |
|----------|--|--------------------------|---------|
| Clause   | Requirement - Test   | Result - Remark          | Verdict |
| 4        | <b>Classification</b>  |                          | -       |
|          | Medical face masks specified in this European Standard are classified into two types (Type I and Type II) according to bacterial filtration efficiency whereby Type II is further divided according to whether or not the mask is splash resistant.                                | Type IIR.                | P       |
|          | The 'R' signifies splash resistance.   |                          | P       |
| 5        | <b>Requirements</b>  |                          | -       |
| 5.1      | <b>General</b>   |                          | -       |
| 5.1.1    | <b>Materials and construction</b>  |                          | -       |
|          | The medical face mask is a medical device, generally composed of a filter layer that is placed, bonded or moulded between layers of fabric.  |                          | P       |
|          | The medical face mask shall not disintegrate, split or tear during intended use.   |                          | P       |
|          | In the selection of the filter and layer materials, attention shall be paid to cleanliness.  |                          | P       |
| 5.1.2    | <b>Design</b>  |                          | -       |
|          | The medical face mask shall have a means by which it can be fitted closely over the nose, mouth and chin of the wearer and which ensures that the mask fits closely at the sides.  |                          | P       |
|          | Medical face masks may have different shapes and constructions as well as additional features such as a face shield (to protect the wearer against splashes and droplets) with or without anti-fog function, or a nose bridge (to enhance fit by conforming to the nose contours). |                          | P       |
| 5.2      | <b>Performance requirements</b>  |                          | -       |
| 5.2.1    | <b>General</b>   |                          | -       |
|          | All tests shall be carried out on finished products or samples cut from finished products.   |                          | P       |
| 5.2.2    | <b>Bacterial filtration efficiency (BFE)</b>   |                          | -       |
|          | When tested in accordance with Annex B, the BFE of the medical face mask shall conform to the minimum value given for the relevant type in Table 1.  | For details, see table 1 | P       |
|          | For thick and rigid masks such as rigid duckbill or cup masks the test method may not be suitable as a proper seal cannot be maintained in the cascade   |                          | P       |



| EN 14683 |   |                 |         |
|----------|---|-----------------|---------|
| Clause   | Requirement - Test  | Result - Remark | Verdict |
|          | impactor  |                 |         |
|          | In these cases, another valid equivalent method shall be used to determine the BFE.   |                 | P       |
|          | When a mask consists of two or more areas with different characteristics or different layer composition, each panel or area shall be tested individually.   |                 | P       |
|          | The lowest performing panel or area shall determine the BFE value of the complete mask.   |                 | P       |
| 5.2.3    | <b>Breathability</b>  |                 | -       |
|          | When tested in accordance with Annex C, the differential pressure of the medical face mask shall conform to the value given for the relevant type in Table 1.   |                 | P       |
|          | If the use of a respiratory protective device as face mask is required in an operating theatre and/or other medical settings, it might not fulfil the performance requirements with regard to differential pressure as defined in this European Standard. |                 | P       |
|          | In such case, the device should fulfil the requirement as specified in the relevant Personal Protective Equipment (PPE) standard(s).  |                 | P       |
| 5.2.4    | <b>Splash resistance</b>  |                 | -       |
|          | When tested in accordance with ISO 22609:2004 the resistance of the medical face mask to penetration of splashes of liquid shall conform to the minimum value given for Type IIR in Table 1   |                 | P       |
| 5.2.5    | <b>Microbial cleanliness (Bioburden)</b>  |                 | -       |
|          | When tested according to EN ISO 11737-1:2018 the bioburden of the medical mask shall be $\leq 30$ CFU/g tested (see Table 1).   |                 | P       |
|          | NOTE EN ISO 11737-1:2018 specifies requirements and provides guidance for the enumeration and microbial characterization of the population of viable microorganisms on or in a medical device, component, raw material or package.                        |                 | -       |
|          | To determine the mask's bioburden according to EN ISO 11737-1:2018, refer to the procedure as   |                 | -       |



| EN 14683 |  |                                   |         |
|----------|--|-----------------------------------|---------|
| Clause   | Requirement - Test   | Result - Remark                   | Verdict |
|          | described in Annex D   |                                   |         |
|          | The number of masks that shall be tested is minimum 5 of the same batch/lot  |                                   | P       |
|          | Other test conditions as described in EN ISO 11737-1:2018 may be applied   |                                   | P       |
|          | In the test report, indicate the total bioburden per individual mask and based on the mask weight, the total bioburden per gram.   |                                   | P       |
| 5.2.6    | <b>Biocompatibility</b>  |                                   | -       |
|          | According to the definition and classification in EN ISO 10993-1:2009, a medical face mask is a surface device with limited contact.   |                                   | P       |
|          | The manufacturer shall complete the evaluation of the medical face mask according to EN ISO 10993-1:2009 and determine the applicable toxicology testing regime.   |                                   | P       |
|          | The results of testing should be documented according to the applicable parts of the EN ISO 10993 series.  |                                   | P       |
|          | The test results shall be available upon request.  |                                   | P       |
| 5.2.7    | <b>Summary of performance requirements</b>   |                                   | -       |
|          | Type I medical face masks should only be used for patients and other persons to reduce the risk of spread of infections particularly in epidemic or pandemic situations.   |                                   | P       |
|          | Type I masks are not intended for use by healthcare professionals in an operating room or in other medical settings with similar requirements.   |                                   | P       |
| 6        | <b>Marking, labelling and packaging</b>  |                                   | -       |
|          | Annex I, §13, of the Medical Devices Directive (93/42/EEC) or Annex I, §23, of the Medical Device Regulation (EU) 2017/745 specifies the information that should be specified on the packaging in which the medical face mask is supplied. |                                   | P       |
|          | The following information shall be supplied:   |                                   | P       |
|          | a) number of this European Standard;   | EN 14683:2019                     | P       |
|          | b) type of mask (as indicated in Table 2).   | Type IIR For details, see table 2 | P       |
|          | EN ISO15223-1:2016 and EN 1041:2008+A1:2013 should be considered.  |                                   | P       |



**Table 1 - Performance requirements for medical face masks**

| Test Item   | Requirement  | Result | Verdict |
|---|--------------|--------|---------|
| <b>Bacterial filtration efficiency (BFE), (%)</b> |              |        |         |
| - Type I  | ≥ 95         | /      | /       |
| - Type II   | ≥ 98         | /      | /       |
| - Type IIR  | ≥ 98         | /      | /       |
| <b>Differential pressure (Pa/cm<sup>2</sup>)</b>  |              |        |         |
| - Type I  | < 40         | /      | /       |
| - Type II   | < 40         | /      | /       |
| - Type IIR  | < 60         | /      | /       |
| <b>Splash resistance pressure (kPa)</b>           |              |        |         |
| - Type I  | Not required | /      | /       |
| - Type II   | Not required | /      | /       |
| - Type IIR  | ≥ 16.0       | /      | /       |
| <b>Microbial cleanliness (cfu/g)</b>              |              |        |         |
| - Type I  | ≤ 30         | 18.7   | P       |
| - Type II   | ≤ 30         | /      | /       |
| - Type IIR  | ≤ 30         | 25     | P       |

**Table 2 Medical Face Mask Material Requirements by Performance Level**

| Characteristic  | Requirement | Test Method   | Result  | Verdict |
|---|-------------|---------------|---------|---------|
| <b>Bacterial filtration efficiency, %</b>   |             |               |         |         |
| - Level 1 Barrier   | ≥ 95        | ASTM F2100-19 | /       | /       |
| - Level 2 Barrier   | ≥ 98        | ASTM F2100-19 | /       | /       |
| - Level 3 Barrier   | ≥ 98        | ASTM F2100-19 | 99.5    | P       |
| <b>Differential pressure, mm H<sub>2</sub>O/cm<sup>2</sup></b>                                |             |               |         |         |
| - Level 1 Barrier   | < 5.0       | ASTM F2100-19 | /       | /       |
| - Level 2 Barrier   | < 6.0       | ASTM F2100-19 | /       | /       |
| - Level 3 Barrier   | < 6.0       | ASTM F2100-19 | 5.2     | P       |
| <b>Sub-micron particulate filtration efficiency at 0.1 micron, %</b>                          |             |               |         |         |
| - Level 1 Barrier   | ≥ 95        | ASTM F2100-19 | /       | /       |
| - Level 2 Barrier   | ≥ 98        | ASTM F2100-19 | /       | /       |
| - Level 3 Barrier   | ≥ 98        | ASTM F2100-19 | 99.3    | P       |
| <b>Resistance to penetration by synthetic blood, minimum pressure in mmHg for pass result</b> |             |               |         |         |
| - Level 1 Barrier   | 80          | ASTM F2100-19 | /       | /       |
| - Level 2 Barrier   | 120         | ASTM F2100-19 | /       | /       |
| - Level 3 Barrier   | 160         | ASTM F2100-19 | 175     | P       |
| <b>Flame spread</b>   |             |               |         |         |
| - Level 1 Barrier   | Class 1     | ASTM F2100-19 | /       | /       |
| - Level 2 Barrier   | Class 1     | ASTM F2100-19 | /       | /       |
| - Level 3 Barrier   | Class 1     | ASTM F2100-19 | Class 1 | P       |

