

See Attachment: Photo documentation for details.

Angelad

60377885 001 168264966 Seite 1 von 12 Prüfbericht-Nr.: Auftrags-Nr. Test Report No.: Order No.: Page 1 of 12

Kunden-Referenz-Nr.: Auftragsdatum: N/A May 14, 2020

Client Reference No.: Order date:

Henan Siyuan Medical Equipment Co., Ltd Auftraggeber:

Industrial cluster, Huanglou Road, Shaolin Avenue, Dengfeng City, Zhengzhou City, Client:

Henan Province, China, 452470

Prüfgegenstand: Single-use medical face mask (non-sterile)

Test item:

Bezeichnung / Typ-Nr.: Flat Type(blue)

Identification / Type No.:

Auftrags-Inhalt: Order content:

Type test

Prüfgrundlage:

Test specification:

EN 14683:2019+AC:2019 except for clause 5.2.6

Wareneingangsdatum: May 18, 2020

Date of receipt:

Prüfmuster-Nr.: 20042801

Test sample No.:

Prüfzeitraum: May 19, 2020 to Jun. 04, 2020

Testing period:

Ort der Prüfung: See page 3 Place of testing.

Prüflaboratorium: TÜV Rheinland (Shenzhen)

Testing laboratory. Co., Ltd.

Prüfergebnis\*: Test result\*:

geprüft von / tested by:

**Pass** 

kontrolliert von / reviewed by:

Joven Ke

Jun. 12, 2020 Javen Ke/Assistant Project Engineer

Jun. 12, 2020 Angela Chen / Department Manager

Name / Stellung Datum Unterschrift Datum Name / Stellung Unterschrift Name / Position Name / Position Date Signature Date Signature

#### Sonstiges / Other.

The test report consists of EN 14683 test report including this cover page (12 pages) and attachment: Photo documentation (5 pages).

- The Biocompatibility (clause 5.2.6) is not evaluated in this test report.

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt Condition of the test item at delivery: Test item complete and undamaged

Legende: 4 = ausreichend 5 = mangelhaft 1 = sehr gut 2 = qut3 = befriedigend P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet 2 = good4 = sufficient Legend: 1 = very good 3 = satisfactory5 = poorP(ass) = passed a.m test specification(s) F(ail) = failed a.m test specification(s) N/A = not applicable N/T = not tested

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.



EN 14683:2019+AC: 2019
Medical face masks —
Requirements and test methods

Report Reference No......: 60377885 001

Date of issue....: See cover page
Total number of pages...: See cover page

Testing Laboratory.....: TÜV Rheinland (Shenzhen) Co., Ltd.

Address.....: 1F East & 2-4F, Cybio Technology Building No.1, No.16 Kejibei 2nd

Road, High-Tech Industrial Park North Nanshan District, 518057,

Shenzhen, China

Applicant's name .....: Henan Siyuan Medical Equipment Co., Ltd

Address.....: Industrial cluster, Huanglou Road, Shaolin Avenue, Dengfeng City,

Zhengzhou City, Henan Province, China, 452470

Test specification:

Standard.....: EN 14683:2019+AC:2019

Test procedure....:: Type test

Non-standard test method.....: N/A

**Test Report Form No.....:** EN 14683:2019+AC:2019\_A

Test Report Form Originator.....: TÜV Rh (SZ)

Master TRF......: 2020-03

**Test item description.....:** Single-use medical face mask (non-sterile)

Trade Mark .....:

**GUANJOY** 冠悦<sup>®</sup>

Manufacturer .....: Same as the applicant

Model/Type reference.....: Flat Type(blue)

Classification....: Type IIR



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List of Attachments (including a total number of pages in each attachment): Attachment - Photo Documentation (5 pages) Summary of testing: Testing location: Tests performed (name of test and test clause): TÜV Rheinland (Shenzhen) Co., Ltd. Construction check according to: 1F East & 2-4F, Cybio Technology Building No.1, Clause 5.1.1 Materials and construction No.16 Kejibei 2nd Road, High-Tech Industrial Park Clause 5.1.2 Design North Nanshan District, 518057, Shenzhen, China Clause 5.2.2 Bacterial filtration efficiency (BFE) **Pony Testing International Group** 2/3/4/6F., Building 35, No.680, Guiping Road, Clause 5.2.3 Breathability Xuhui District, Shanghai, 200233, China Clause 5.2.4 Splash resistance Clause 5.2.5 Microbial cleanliness (Bioburden)

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Copy of marking plate The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks. See attachment.

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Testing Date of receipt of test item(s)...... See cover page Dates of tests performed.....: See cover page Possible test case verdicts: - test case does not apply to the test object .....: N/A - test object does meet the requirement ...... P (Pass) - test object was not evaluated for the requirement ...: N/E (collateral standards only) - test object does not meet the requirement ...... : F (Fail) General remarks: "(See Attachment #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. The tests results presented in this report relate only to the object tested. This report shall not be reproduced except in full without the written approval of the testing laboratory. List of test equipment must be kept on file and available for review. Additional test data and/or information provided in the attachments to this report. Throughout this report a  $\square$  comma /  $\boxtimes$  point is used as the decimal separator. Name and address of factory (ies)...... Same as the applicant General product information: 1. The tested medical mask classified as type IIR. 2, The Biocompatibility (clause 5.2.6) is not evaluated in this test report. 3, The test results are for reference only. Relevant certification may be needed if the mask is intended to be sold in Europe.



	EN 14683:2019+AC:20	19	
Clause	Requirement + Test	Result - Remark	Verdict
4	Classification		Р
	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. The 'R' signifies splash resistance.	Type IIR	Р
5	Requirements		Р
5.1	General		Р
5.1.1	Materials and construction		Р
	The medical face mask is a medical device, generally composed of a filter layer that is placed, bonded or moulded between layers of fabric.	3 ply designed with two layers of polypropylene spunbonded non-woven fabric and one layer of polypropylene melt-blown non-woven fabric.	Р
	The medical face mask shall not disintegrate, split or tear during intended use.		Р
	In the selection of the filter and layer materials, attention shall be paid to cleanliness.		Р
5.1.2	Design		Р
	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.		Р
	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).	With nose clip	Р
5.2	Performance requirements		Р
5.2.1	General		Р
	All tests shall be carried out on finished products or samples cut from finished products.		Р
5.2.2	Bacterial filtration efficiency (BFE)		Р
	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.	See appended table 5.2.2	Р
	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 impactor. In these cases, another valid equivalent method shall be used to determine the BFE.	Not such mask.	N/A



	EN 14683:2019+AC:20	19	
Clause	Requirement + Test	Result - Remark	Verdict
	When a mask consists of two or more areas with different characteristics or different layer-composition, each panel or area shall be tested individually.	Same characteristics and same layer-composition declared by manufacturer.	N/A
	The lowest performing panel or area shall determine the BFE value of the complete mask	See above	N/A
5.2.3	Breathability		Р
	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.	See appended table 5.2.3	Р
	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. In such case, the device should fulfil the requirement as specified in the relevant Personal Protective Equipment (PPE) standard(s).		N/A
5.2.4	Splash resistance		Р
	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.	See appended table 5.2.4	Р
5.2.5	Microbial cleanliness (Bioburden)		Р
	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).	See appended table 5.2.5	Р
5.2.6	Biocompatibility		N/E
	According to the definition and classification in EN ISO 10993-1:2009, a medical face mask is a surface device with limited contact.	The biocompatibility is not evaluated in this test report.	N/E
	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.		N/E
	The results of testing should be documented according to the applicable parts of the EN ISO 10993 series.		N/E
	The test results shall be available upon request.		N/E
6	Marking, labelling and packaging		Р
	Annex I, §13, of the Medical Devices Directive (93/42/EEC) or Annex I, §23, of the Medical Device	See attachment.	Р
	Regulation (EU) 2017/745 specifies the information that should be specified on the packaging in which the medical face mask is supplied.		
OMF-RT-33	R008SHG Revision number: 1.0	Effective date: 2020	



	EN 14683:2019+AC:2019				
Clause	Requirement + Test Result - Remark		Verdict		
	The following information shall be supplied:		Р		
	a) number of this European Standard;		Р		
	b) type of mask (as indicated in Table 1).		Р		
	EN ISO 15223-1:2016 and EN 1041:2008+A1:2013 should be considered.		Р		



	EN 14683:2019+AC:2019		
Clause	Requirement + Test	Result - Remark	Verdict

5.2.2	-	TABLE: Bacterial filtration efficiency (BFE)						Р
Batch/ lot no.:	Test Specimen no.:		(cm²)	Flow rate (I/min)	Mean of the total plate counts of the two positive controls	Mean plate count of the negative controls	BFE for each test specimen (%)	Remarks
2004280	1	155x130	132.7	28.3			99.8	-
1	2	155x130	132.7	28.3			99.8	
	3	155x130	132.7	28.3	1936	0	99.9	
	4	155x130	132.7	28.3			99.7	
	5	155x130	132.7	28.3			99.7	

Supplementary information:

1, Each specimen was conditioned at 21.3 °C and 85.0 % relative humidity for 4 h to bring them into equilibrium with atmosphere prior to testing.

<sup>2,</sup> The side of the test specimen was facing towards the challenge aerosol: inside of mask.



EN 14683:2019+AC:2019			
Clause	Requirement + Test	Result - Remark	Verdict

5.2.3	7	TABLE: Breathability (Differential pressure)				
Batch/ lot no.:	Test Specimen number- Test area number	Differential pressure for each test area (Pa/cm²)	The averaged differential pressure for each test specimen (Pa/cm²)	Flow rate (I/min)	Rem	arks
200428	1-1	22.8		8.0	-	-
01	1-2	24.6		8.0	-	_
	1-3	20.8	22.5	8.0	-	_
	1-4	23.2		8.0	-	-
	1-5	20.9		8.0	-	-
	2-1	23.1		8.0	-	-
	2-2	21.8		8.0	-	-
	2-3	23.6	23.2	8.0	-	-
	2-4	22.3		8.0	-	-
	2-5	25.1		8.0	-	-
	3-1	27.7		8.0	-	-
	3-2	26.1		8.0	•	-
	3-3	27.5	28.0	8.0	•	-
	3-4	29.7		8.0	-	-
	3-5	28.9		8.0	-	-
	4-1	22.8		8.0	•	-
	4-2	23.9		8.0	-	-
	4-3	22.8	22.6	8.0	-	-
	4-4	20.9		8.0	-	-
	4-5	22.6		8.0	-	-
	5-1	19.2		8.0	•	-
	5-2	20.8		8.0		-
	5-3	20.5	19.7	8.0		_
	5-4	19.8		8.0		-
	5-5	18.4		8.0	_	-

Supplementary information:

Each specimen was conditioned at  $\underline{21.0}$  °C and  $\underline{1.05}$  % relative humidity for  $\underline{4}$  h to bring them into equilibrium with



EN 14683:2019+AC:2019			
Clause	Requirement + Test	Result - Remark	Verdict

atmosphere prior to testing.

5.2.4	TABLE: Sp	lash resistance			Р
Batch/ lo	t no.:	Test mask no.:	The material of tested mask	Test result (Pass/fail)	Remarks
20042801		1		Pass	
		2	1	Pass	
		3	1	Pass	
		4	] [	Pass	
		5	] [	Pass	
		6	1	Pass	
		7	] [	Pass	
		8	] [	Pass	
		9		Pass	
		10		Pass	
		11		Pass	
		12	1	Pass	
		13	1	Pass	
		14	See clause	Pass	
		15	5.1.1 for detail	Pass	
		16		Pass	
		17	1	Pass	
		18		Pass	
		19		Pass	
		20	1	Pass	
		21	] [	Pass	
		22	]	Pass	
		23		Pass	-
		24	]	Pass	
		25	] [	Pass	
		26	]	Pass	
		27		Pass	
		28	1 [	Pass	



		EN 146	683:2019+AC:20	019		
Clause	Requirement + Test			Result - Remark		Verdict
	29	)		Pass		
	30			Pass	-	
	31			Pass	-	
	32	1		Pass	-	

# **Supplementary information:**

- 1, Each specimen was conditioned at  $\underline{21.0}$  °C and  $\underline{81.0}$  % relative humidity for  $\underline{4}$  h to bring them into equilibrium with atmosphere prior to testing.
- 2, The description of target area tested: the centre of the specimen.
- 3, Any technique used to enhance visual detection of synthetic blood: cotton swab
- 4, The temperature and relative humidity for testing: 21.0°C and 81.0 %
- 5, Description of any pre-treatment techniques used: N/A.

5.2.5	TABLE: Mi	crobial cleanliness (Bi	oburden)			Р
Batch/ Id	ot no.:	Mask(under test) no.:	Weight of each mask (g)	Total bioburden per individual mask (CFU/g)	Rem	arks
20042801		1	2.71	<1		
		2	2.74	<1		
		3		<1	_	-
		4	2.79	<1	-	-
		5	2.76	<1	_	_

# End of EN 14683 test report

# **Photo Documentation**

**TÜV**Rheinland®

Report No.: 60377885 001

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Product: Single-use medical face mask (non-sterile)



Figure 1 View of mask with packaging for test

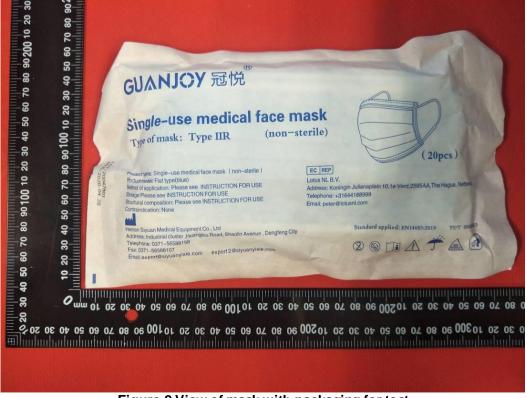


Figure 2 View of mask with packaging for test (Final marking of package refer to Figure 7 to Figure 9 below)

# **Photo Documentation**

**TÜV**Rheinland®

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Product: Single-use medical face mask (non-sterile)

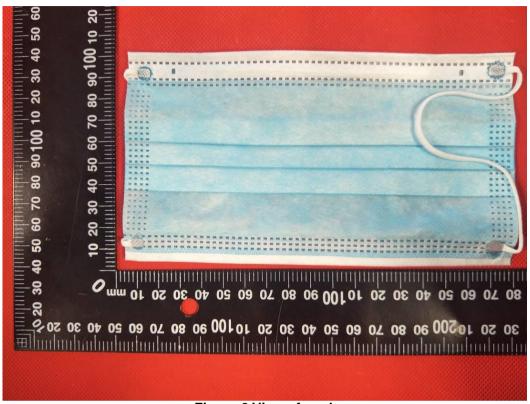


Figure 3 View of mask

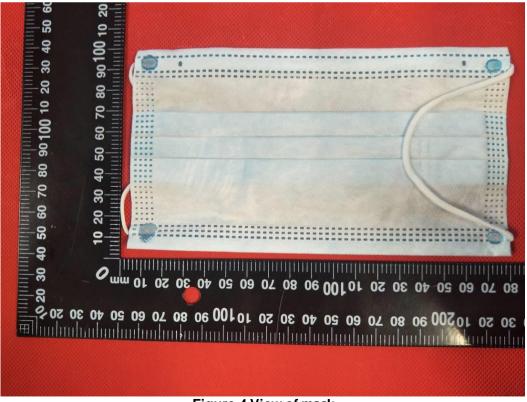


Figure 4 View of mask

# **Photo Documentation**

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Product: Single-use medical face mask (non-sterile)

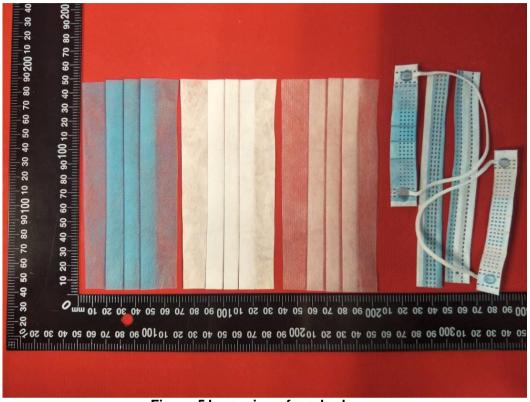


Figure 5 Inner view of mask - layers

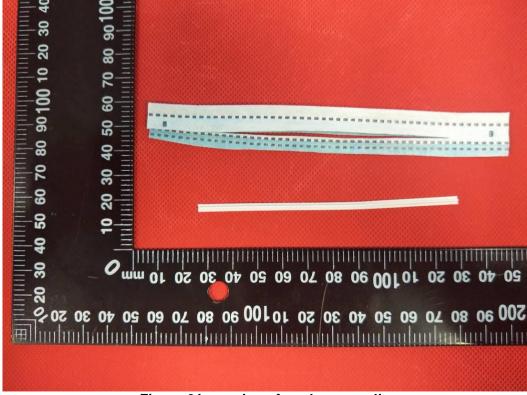


Figure 6 Inner view of mask - nose clip

### **Photo Documentation**



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Product: Single-use medical face mask (non-sterile)



Figure 7 View of packaging bag (20pcs/bag, which pack without instruction for use)



Figure 8 View of packaging bag 2 (20pcs/bag, which pack with instruction for use)

# **Photo Documentation**



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<u>Product:</u> Single-use medical face mask (non-sterile)

Type Designation: Flat Type(blue)

CE

#### INSTRUCTION FOR USE

#### Single-use medical face mask (non-sterile)

Please read the instruction book carefully before using

Edition: 1.1 28-04-2020

Overview: This product is used for clinical use by all kinds of people. The product consists of a mask body, a nose clip and two mask belts. The inner and outer layers of the product are made of polypropylene spunbonded non-woven fabric, and the intermediate layer is made of polypropylene filter material melt-blown non-woven fabric. The nose clip is made of galvanized iron wire and polythene bag. The mask belt is made of low elastic polyester fiber and fibrous material.

Product name: Single-use medical face mask (non-sterile)

Model: Folded Type

Intended use: During non-invasive operation, medical personnel or other relevant personnel wear the belt to cover the user's mouth, nose and jaw, providing a certain physical barrier to prevent the direct passage of pathogens, microorganisms and particles.

Contraindication and warning: None

#### Attention:

- 1. Products for single-use, do not reuse.
- 2. Check the integrity of the package before use. If the package is damaged, do not use it.
- 3. The product should be used as soon as possible after opening.
- 4.The mask should be replaced in time after it is wet and contaminated by the patient's blood and body fluids.

#### The performance characteristics of the device:

- 1.Bacterial filtration efficiency (BFE) ≥ 98%
- 2.Differential pressure < 60 Pa/cm2
- 3.Splash resistance pressure ≥ 16.0 kPa
- 4.Microbial cleanliness ≤ 30 cfu/g

#### Method

- 1.Place the front of the mask on the muzzle of the face. One end of the metal strip is above the mask, do not wear it upside down.
- Place the mask across the nose and mouth of the face, and hang the rope on the ears with both hands.
- 3.Press the metal strips on both sides of the bridge of the nose with both hands to make the upper end of the mask close to the bridge of the nose. Then pull the mask down so it doesn't wrinkle and better covers the nose and mouth.

#### Storage

The relative temperature should not exceed 40 °C and the humidity should not exceed 80%. It should be kept in a cool, dry and well-ventilated environment without corrosive gases.

#### Transportation

The product should be handled gently in the process of transportation, to avoid falling from more than 2 meters to guard against pressure, direct sunlight and rain and snow.

#### Product Valid Date

2 years.

#### Applicable technical standards

EN 14683:2019+AC Medical face mask - Requirement and test methods

#### Manufacturer

Company name: Henan Siyuan Medical Equipment Co., Ltd

Address: Industrial cluster, Huanglou Road, Shaolin Avenue, Dengfeng City, China

Telephone: 0371-56588158

Fax: 0371-56588107 Email: export@siyuanyixie.com export2@siyuanyixie.com

#### European Authorized Representative

Company name: Lotus NL B.V.

Address: Koningin Julianaplein 10,1e Verd,2595AA, The Hague, Netherlands.

TEL: +31644168999

#### Label identification:

LOT	Butch number	8	Please don't reuse it
[II]	Please read the instruction book carefully before using	8	Validity
$\triangle$	Warning and attention, please refer to the instructions for use	<b>"</b>	Manufacturer
ec nep	European Authorized Representative	+	Keep dry
	Non-sterile	<b>®</b>	Do not use if package is damaged
$\sim$	Date of manufacture > XXXX-XX-XX		
Œ	The product meets the basic requirements of European	n REGULA	DON (EU) 2017/745

Figure 9 Instruction for use

**END OF THE PHOTO DOCUMENTATION**