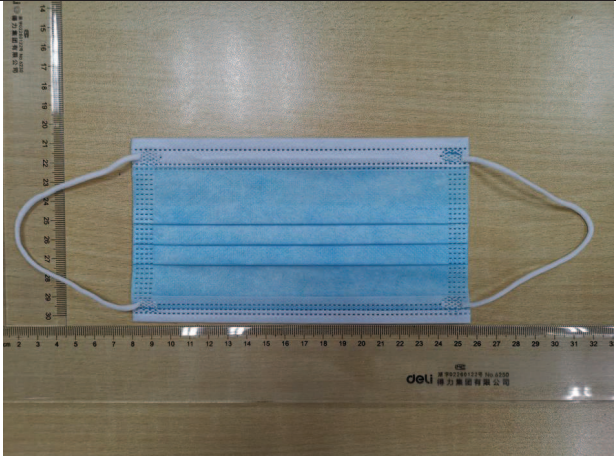




Prüfbericht-Nr.: <i>Test report no.:</i>	60406488 001	Auftrags-Nr.: <i>Order no.:</i>	244261377	Seite 1 von 14 Page 1 of 14
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	2254343	Auftragsdatum: <i>Order date:</i>	24.08.2020	
Auftraggeber: <i>Client:</i>	Ningbo Green Textile Co., Ltd No. 498, 3rd Xingci Road, Hangzhou Bay New Zone, Ningbo, Zhejiang, China			
Prüfgegenstand: <i>Test item:</i>	Surgical Mask			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	Green2020-32			
Auftrags-Inhalt: <i>Order content:</i>	Type test			
Prüfgrundlage: <i>Test specification:</i>	EN 14683:2019+AC:2019 (except for Clause 5.2.6 Biocompatibility)			
Wareneingangsdatum: <i>Date of sample receipt:</i>	26.08.2020			
Prüfmuster-Nr.: <i>Test sample no.:</i>	A002896837-001			
Prüfzeitraum: <i>Testing period:</i>	27.08.2020 to 11.09.2020			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	Ranibow Pan 	genehmigt von: <i>authorized by:</i>	Xiaojun Ding 	
Datum: <i>Date:</i>	17.09.2020	Datum: <i>Date:</i>	17.09.2020	
Stellung / Position:	Sachverständige(r)/Expert	Stellung / Position:	Sachverständige(r)/Expert	
Sonstiges / Other:	The test report consists of EN 14683 test report including this cover page (14 pages). Clause 5.2.6 Biocompatibility is not evaluated in this report.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* Legend:	P(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. <i>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.</i>				

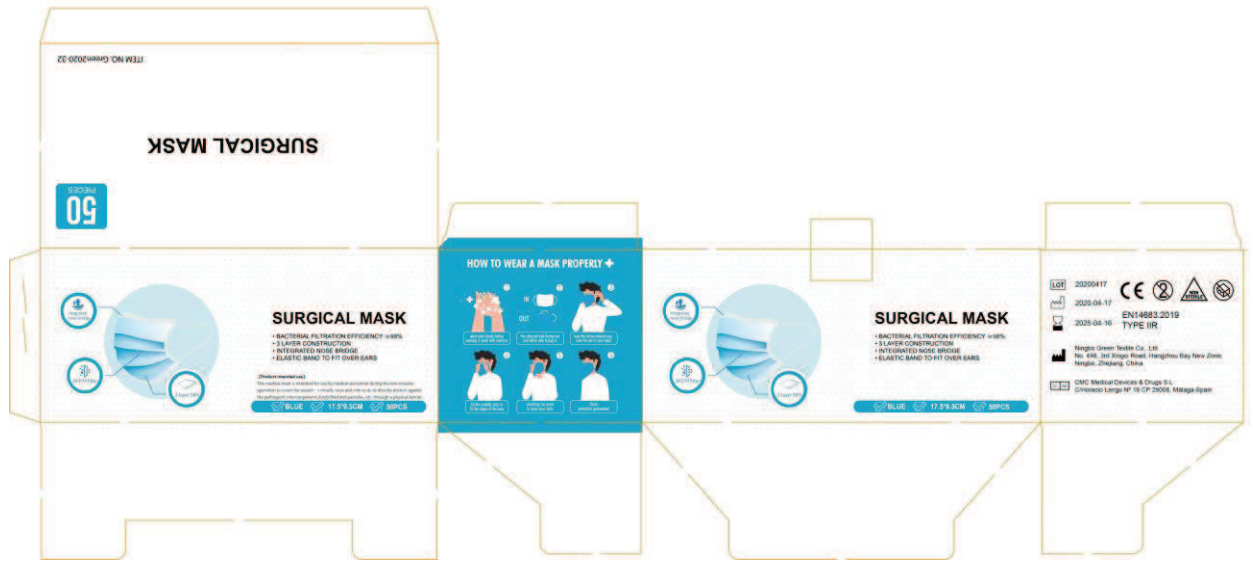
v05

EN 14683:2019+AC: 2019 Medical face masks — Requirements and test methods	
Report Reference No. :	See cover page
Date of issue :	See cover page
Total number of pages :	See cover page
Testing Laboratory :	TÜV Rheinland (Shanghai) Co., Ltd.
Address :	No. 177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China
Applicant's name	Ningbo Green Textile Co., Ltd
Address :	No. 498, 3rd Xingci Road, Hangzhou Bay New Zone, Ningbo, Zhejiang, China
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_B
Test Report Form Originator :	TÜV Rh (SZ)
Master TRF :	2020-09
Test item description :	Surgical Mask
Trade Mark	N/A
Manufacturer	Same as applicant
Model/Type reference	Green2020-32
Classification :	Type IIR

List of Attachments (including a total number of pages in each attachment):	
N/A	
Summary of testing:	
Tests performed (name of test and test clause): Clause 5.2.2 Bacterial filtration efficiency; Clause 5.2.3 Breathability; Clause 5.2.4 Splash resistance; Clause 5.2.5 Microbial cleanliness	Testing location: TÜV Rheinland (Shanghai) Co., Ltd. No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China

Copy of marking plate
<p>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.</p> <p>Box:</p>

195x100x85mm
2020/08/18

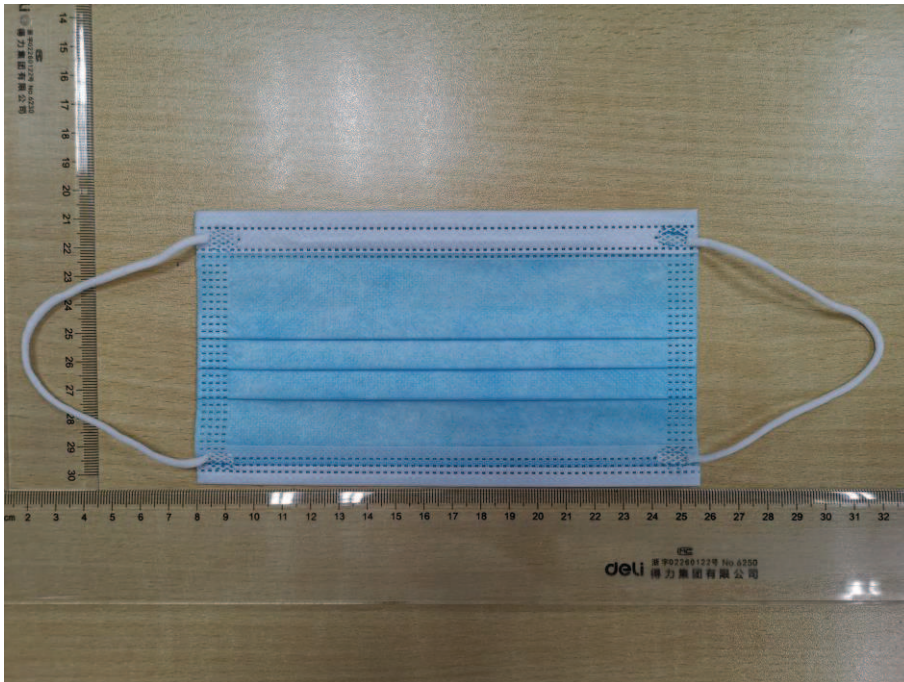


Package:

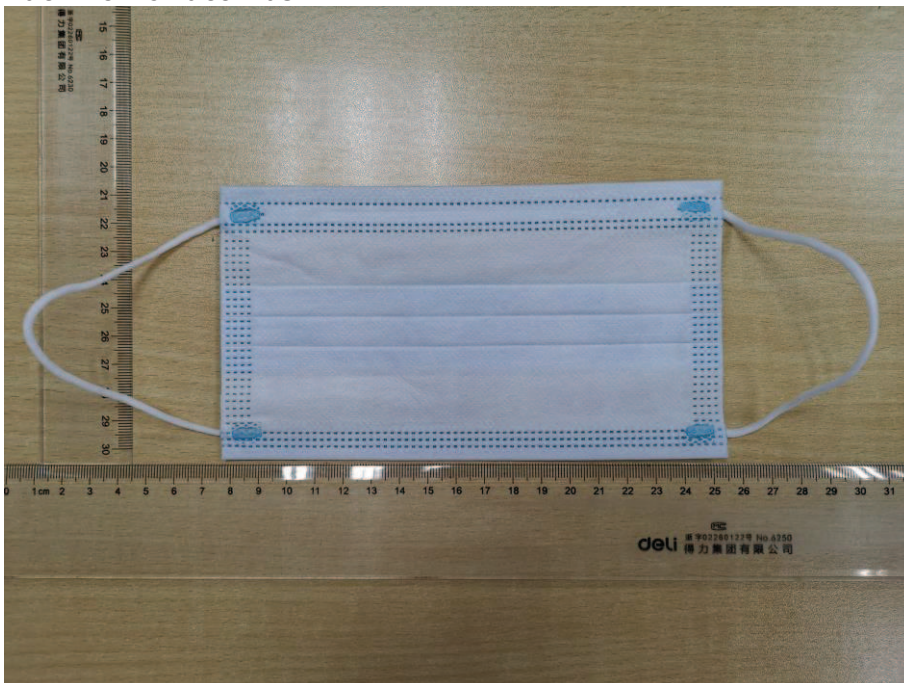
	520 mm	390 mm	520 mm	390 mm
340 mm				

Remark: According to information from applicant, there are 50pcs medical face masks including in final small package during mass production.

Front view of face mask:



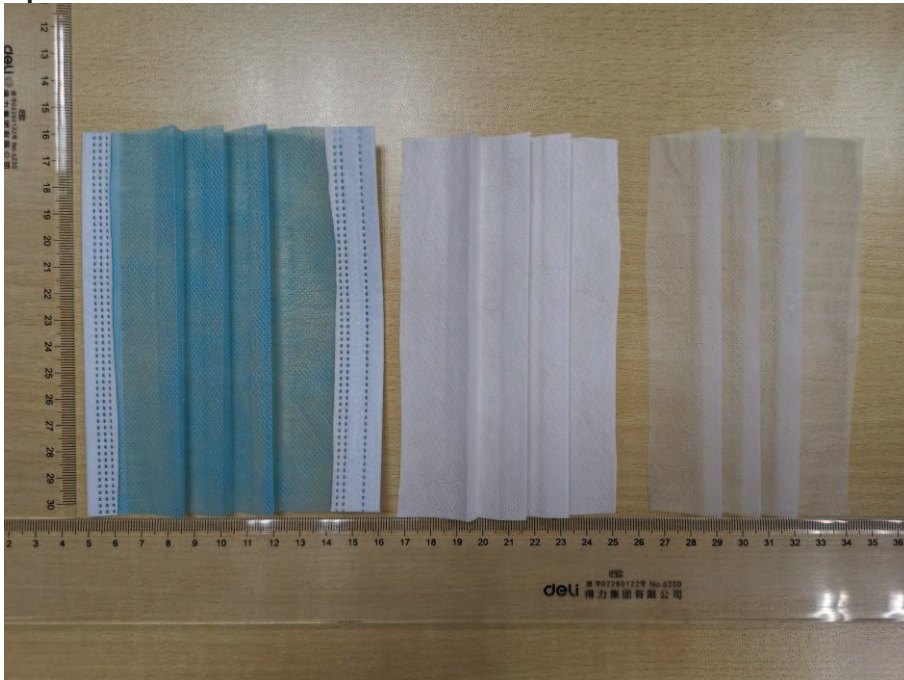
Back view of face mask:



Open view of face mask:



Open view of face mask:



EN 14683:2019+AC:2019			
Clause	Requirement + Test	Result - Remark	Verdict
4	Classification		P
	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	P
5	Requirements		P
5.1	General		P
5.1.1	Materials and construction		P
	The medical face mask is a medical device, generally composed of a filter layer that is placed, bonded or moulded between layers of fabric.	Composed of a filter layer between layers of fabric	P
	The medical face mask shall not disintegrate, split or tear during intended use.	Complied	P
	In the selection of the filter and layer materials, attention shall be paid to cleanliness.	Considered	P
5.1.2	Design		P
	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.	Fitted closely over nose	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).	With a nose bridge	P
5.2	Performance requirements		P
5.2.1	General		P
	All tests shall be carried out on finished products or samples cut from finished products.	Complied	P
5.2.2	Bacterial filtration efficiency (BFE)		P
	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	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 impactor. In these cases, another valid equivalent method shall be used to determine the BFE.	Not thick and rigid mask	N/A

EN 14683:2019+AC:2019			
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.	No such condition	N/A
	The lowest performing panel or area shall determine the BFE value of the complete mask		N/A
5.2.3	Breathability		P
	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	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. In such case, the device should fulfil the requirement as specified in the relevant Personal Protective Equipment (PPE) standard(s).	No such respiratory protective device	N/A
5.2.4	Splash resistance		P
	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	P
5.2.5	Microbial cleanliness (Bioburden)		P
	When tested according to EN ISO 11737-1:2018 the bioburden of the medical mask shall be ≤ 30 CFU/g tested (see Table 1).	See appended table 5.2.5	P
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.		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		P
	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.	Checked and complied	P
	The following information shall be supplied:		P
	a) number of this European Standard;	Marked on the label	P

EN 14683:2019+AC:2019			
Clause	Requirement + Test	Result - Remark	Verdict
	b) type of mask (as indicated in Table 1).	Marked on the label	P
	EN ISO 15223-1:2016 and EN 1041:2008+A1:2013 should be considered.	Considered	P

EN 14683:2019+AC:2019								
Clause	Requirement + Test				Result - Remark			Verdict
5.2.2		TABLE: Bacterial filtration efficiency (BFE)						P
Batch/lot no.:	Test Specimen no.:	Dimension of the test specimen L x W (mm x mm)	test area (cm ²)	Flow rate (l/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
A00289 6837-001	1	100×100	50	28.3	1838	<1	99.9	P
	2	100×100	50	28.3	1838	<1	99.9	P
	3	100×100	50	28.3	1838	<1	>99.9	P
	4	100×100	50	28.3	1838	<1	>99.9	P
	5	100×100	50	28.3	1838	<1	99.9	P
Supplementary information:								
1, Each specimen was conditioned at <u>21.0</u> °C and <u>85.0</u> % relative humidity for <u>4</u> h to bring them into equilibrium with atmosphere prior to testing.								
2, The side of the test specimen was facing towards the challenge aerosol: <u>face</u>								
Remark:								
Limit value: Type I ≥95%; Type II≥98%; Type IIR ≥98%.								

5.2.3		TABLE: Breathability (Differential pressure)				P
Batch/lot no.:	Test Specimen number-Test area number	Differential pressure for each test area (Pa/cm ²)	The averaged differential pressure for each test specimen (Pa/cm ²)	Flow rate (l/min)	Remarks	
A0028 96837-001	1-1	39.3	39.3	8.0	P	
	1-2	42.5		8.0	P	
	1-3	37.2		8.0	P	
	1-4	39.4		8.0	P	
	1-5	37.9		8.0	P	
	2-1	41.5	37.9	8.0	P	
	2-2	35.1		8.0	P	
	2-3	38.8		8.0	P	
	2-4	39.3		8.0	P	
	2-5	34.7		8.0	P	
	3-1	44.5		43.5	8.0	P

EN 14683:2019+AC:2019					
Clause	Requirement + Test		Result - Remark	Verdict	
	3-2	43.3		8.0	P
	3-3	47.4		8.0	P
	3-4	43.3		8.0	P
	3-5	39.0		8.0	P
	4-1	44.3	43.2	8.0	P
	4-2	40.3		8.0	P
	4-3	40.8		8.0	P
	4-4	45.4		8.0	P
	4-5	45.3		8.0	P
	5-1	47.3	43.9	8.0	P
	5-2	47.6		8.0	P
	5-3	41.0		8.0	P
	5-4	45.0		8.0	P
	5-5	38.7		8.0	P

Supplementary information:

Each specimen was conditioned at 21.0 °C and 85.0 % relative humidity for 4 h to bring them into equilibrium with atmosphere prior to testing.

Remark:

Limit value: Type I <40; Type II <40; Type IIR <60.

5.2.4	TABLE: Splash resistance				P
Batch/ lot no.:	Test mask no.:	The material of tested mask	Test result (Pass/fail)	Remarks	
A002896837-001	1	Polypropylene fused jet filter layer	Pass	--	
	2	Polypropylene fused jet filter layer	Pass	--	
	3	Polypropylene fused jet filter layer	Pass	--	
	4	Polypropylene fused jet filter layer	Pass	--	
	5	Polypropylene fused jet filter layer	Pass	--	
	6	Polypropylene fused jet filter layer	Pass	--	
	7	Polypropylene fused jet	Pass	--	

EN 14683:2019+AC:2019				
Clause	Requirement + Test	Result - Remark	Verdict	
		filter layer		
	8	Polypropylene fused jet filter layer	Pass	--
	9	Polypropylene fused jet filter layer	Pass	--
	10	Polypropylene fused jet filter layer	Pass	--
	11	Polypropylene fused jet filter layer	Pass	--
	12	Polypropylene fused jet filter layer	Pass	--
	13	Polypropylene fused jet filter layer	Pass	--
	14	Polypropylene fused jet filter layer	Pass	--
	15	Polypropylene fused jet filter layer	Pass	--
	16	Polypropylene fused jet filter layer	Pass	--
	17	Polypropylene fused jet filter layer	Pass	--
	18	Polypropylene fused jet filter layer	Pass	--
	19	Polypropylene fused jet filter layer	Pass	--
	20	Polypropylene fused jet filter layer	Pass	--
	21	Polypropylene fused jet filter layer	Pass	--
	22	Polypropylene fused jet filter layer	Pass	--
	23	Polypropylene fused jet filter layer	Pass	--
	24	Polypropylene fused jet filter layer	Pass	--
	25	Polypropylene fused jet filter layer	Pass	--
	26	Polypropylene fused jet filter layer	Pass	--
	27	Polypropylene fused jet filter layer	Pass	--

EN 14683:2019+AC:2019				
Clause	Requirement + Test		Result - Remark	Verdict
	28	Polypropylene fused jet filter layer	Pass	--
	29	Polypropylene fused jet filter layer	Pass	--
	30	Polypropylene fused jet filter layer	Pass	--
	31	Polypropylene fused jet filter layer	Pass	--
	32	Polypropylene fused jet filter layer	Pass	--
Supplementary information: 1, Each specimen was conditioned at <u>21.0</u> °C and <u>85.0</u> % relative humidity for <u>4</u> h to bring them into equilibrium with atmosphere prior to testing. 2, The description of target area tested: <u>the center of outside</u> 3, Any technique used to enhance visual detection of synthetic blood: <u>none</u> 4, The temperature and relative humidity for testing: <u>21.0</u> °C and <u>85.0</u> % 5, Description of any pre-treatment techniques used: <u>constant temperature and humidity machine was used</u>				
Remark: Limit value: not required for Type I and Type II; Type IIR ≥16,0.				

5.2.5	TABLE: Microbial cleanliness (Bioburden)				P
Batch/ lot no.:	Mask(under test) no.:	Weight of each mask (g)	Total bioburden per individual mask (CFU)	Total bioburden per gram (CFU/g)	Remarks
A00289683 7-001	1	3.12	23.4	7.5	P
	2	3.15	15.6	5.0	P
	3	3.13	19.5	6.2	P
	4	3.16	24.7	7.8	P
	5	3.12	31.2	10.0	P
Supplementary information: Remark: Limit value: Type I ≤30; Type II ≤30; Type IIR ≤30.					

End of test report