

# **TEST REPORT**

# MEASUREMENT AND TEST REPORT For

Shenzhen Tianlong Century Technology Development Co.,Ltd.

3 & 5th Floor, Building 1, Quanxinyuan Industrial zone, Tongsheng community, Dalang street street, Longhua District, Shenzhen, China.

**Models: T L - M** 0 1

March 13, 2020

This Report Concerns:		Equipment Type:	
⊠ Original Report		Mask	
Test Engineer:			
Report Number:	CIC200312048-ZJ		
Test Date:	March 09-10, 2020		
Reviewed By:			
Prepared By: Shenzhen CIC Testing Technology Co., Ltd.			
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**Note:** This test report is limited to the above client company and the product model only. It may not be duplicated without prior written consent of Shenzhen CIC Testing Technology Co., Ltd.

### TEST REPORT EN 14683

#### Medical face masks - Requirements and test methods

Report reference No......: CIC200312048-ZJ

Tested by (+signature).....: Dana Huang .....see cover page.....see

Approved by (+ signature)... : Hale Zhao .....see cover page.....see

Date of issue.....: March 13, 2020

**Testing laboratory** 

Name...... : Shenzhen CIC Testing Technology Co., Ltd

Address...... : No.102, Floor 1, Building A, No. 26 of Xinhe Road, Xinqiao Community,

Xingiao Street, Baoan District, Shenzhen, Guangdong, China.

Test location.....: (Same as above)

Client

Name...... : Shenzhen Tianlong Century Technology Development Co.,Ltd.

Address...... 3 & 5th Floor, Building 1, Quanxinyuan Industrial zone, Tongsheng

community, Dalang street street, Longhua District, Shenzhen, China.

Test specification

Standard.....: EN 14683:2019

Test procedure..... : CE- MDR

Procedure deviation...... : N.A.

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

**Test Report Form No.....** EN\_14683

**Test item** 

Description.....: Mask
Model No. : N/A

Trade Mark.....: N/A

Manufacturer...... : Shenzhen Tianlong Century Technology Development Co.,Ltd.

community, Dalang street street, Longhua District, Shenzhen, China.

Classification.....: Type II

#### Test case verdicts

Test case does not apply to the test object.....: N(.A.)

Test item does meet the requirement....: P(ass)

Test item does not meet the requirement....: F(ail)

#### Testing

#### General remarks

This test report shall not be reproduced except in full without the written approval of the testing laboratory.

The test results presented in this report relate only to the item tested.

"(see remark #)" refers to a remark appended to the report.

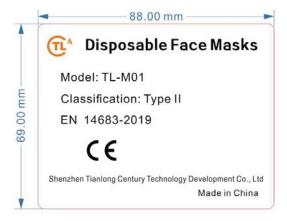
"(see appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

#### Remark:

The EUT complies with the standard EN 14683 requirement.

#### Copy of marking plate:



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	EN 14683		
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 II	Р
5	Requirements		Р
5.1	General		Р
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. The medical face mask shall not disintegrate, split or tear during intended use. In the selection of the filter and layer materials, attention shall be paid to cleanliness.	Meet the requirements	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.	The wire holds the shape and makes the mask fit tightly to the nose	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)		N
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	All tests shall be carried out on finished products or samples cut from finished products.		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 table 1.	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		N

equivalent method shall be used to determine the

When a mask consists of two or more areas with different characteristics or different layercomposition, each panel or area shall be tested individually. The lowest performing panel or area

BFE

	EN 14683		
Clause	Requirement + Test	Result - Remark	Verdict
	shall data waise the DEE value of the consulate		
	shall determine the BFE value of the complete mask.		
5.2.3	Breathability		Р
	When tested in accordance with Annex C, the		Р
	differential pressure of the medical face mask		'
	shall conform to the value given for the relevant		
	type in Table 1		
	If the use of a respiratory protective device as face mask is required in an operating theatre		N
	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).		
5.2.4	Splash resistance		N
	When tested in accordance with ISO 22609:2004		N
	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.		
5.2.5	Microbial cleanliness (Bioburden)		Р
	When tested according to EN ISO 11737-1:2018	1# : 28.6 CFU/g;	Р
	the bioburden of the medical mask shall be $\leqslant$ 30	2#: 28.4 CFU/g;	
	CFU/g tested (see Table 1).	3#: 28.5 CFU/g;	
		4#: 28.6 CFU/g	
		5#: 28.6 CFU/g	
	NOTE EN ISO 11737-1:2018 specifies		P
	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.		P
	To determine the mask's bioburden according to EN ISO 11737-1:2018, refer to the procedure		
	as described in Annex D.		
	The number of masks that shall be tested is		Р
	minimum 5 of the same batch/lot.		
	Other test conditions as described in EN ISO 11737-1:2018 may be applied.		Р
	In the test report, indicate the total bioburden per	28.54	Р
	individual mask and based on the mask weight, the total bioburden per gram.		
5.2.6	Biocompatibility		Р
	According to the definition and classification in		Р
	EN ISO 10993-1:2009, a medical face mask is a		
	surface device with limited contact. 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. The results of testing should be		

	EN 14683		
Clause	Requirement + Test	Result - Remark	Verdict
	documented according to the applicable parts of the EN ISO 10993 series. The test results shall be available upon request.		
5.2.7	Summary of performance requirements		Р
	,		
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 Regulation (EU) 2017/745 specifies the information that should be specified on the packaging in which the medical face mask is supplied.		Р
	The following information shall be supplied:		Р
	a) number of this European Standard;	EN 14683:2019	Р
	b) type of mask (as indicated in Table 1).	Type II	Р
	EN ISO 15223-1:2016 and EN 1041:2008+A1:2013 should be considered.		Р

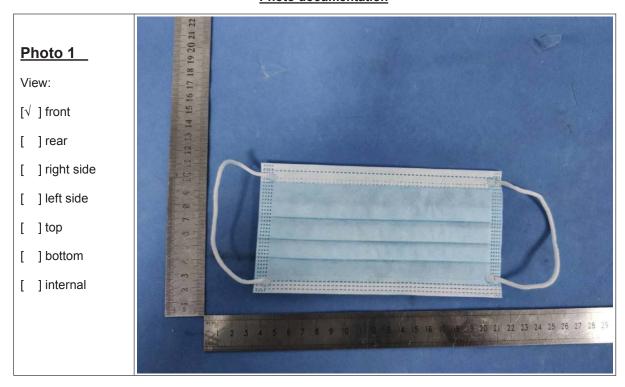
Table 1 — Performance requirements for medical face masks

Table 1	The perfo	The performance test			Result
Test		Туре I а	Type II	Type IIR	Type II
Bacterial filti efficiency (BF		≥95	≥98	≥98	99
Differential pr (Pa/cm 2		<40	<40	<60	38.2
Splash resis pressure (k		Not required	Not required	≥16,0	
Microbial clea (cfu/g)		≤30	≤30	≤30	29.1

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. Type I masks are not intended for use by healthcare professionals in an operating room or in other medical settings with similar requirements.

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## Appendix Photo documentation



\*\*\*\*\*\* End of this report \*\*\*\*\*\*