SUBJECT	**Physical Test**
TEST LOCATION	**TÜV SÜD China** TÜV SÜD Products Testing (Shanghai) Co., Ltd. B-3/4, No.1999 Du Hui Road, Minhang District Shanghai 201108, P.R. China
CLIENT NAME	**Jiangsu Huayuan Medical Technology Co., Ltd.**
CLIENT ADDRESS	NO.36 Nanzhuang Road, High-Tech Industrial Development Zone of Dongtai City，Jiangsu Provice
TEST PERIOD	26-Mar-2020~22-Apr-2020

Prepared By	**Authorized By**
(Bella Xu) Report Drafter	(Leo Liu) Authorized Signatory

Note: (1) General Terms & Conditions as mentioned overleaf. (2) The results relate only to the items tested.(3) The test report shall not be reproduced except in full without the written approval of the laboratory.(4) Without the agreement of the laboratory , the client is not authorized to use the test results for unapproved propaganda.

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Differential pressure of a medical face mask

1.Purpose

The purpose of the test was to measure the differential pressure of a medical face mask.

2.Sample description was given by the client

Medical Face Mask

Manufacture: Jiangsu Huayuan Medical Technology Co., Ltd.

3.References

EN 14683:2019 Annex C

4.Apparatus

Differential pressure testing instrument

5.Test specimen

5.1 Test specimen are complete masks or shall be cut from masks. Each specimen shall be able to provide 5 different circular test areas of 2.5 cm in diameter.
5.2 Each test specimen shall be conditioned at (21±5)°C and (85±5) % relative humidity for the time required to bring them into equilibrium with atmosphere prior to testing.

6. Procedure

6.1 The test specimen is placed across the 2.5 cm diameter orifice(total area 4.9 cm^2) and clamped into place so as to minimize air leaks and that the tested area of the specimen will be in line and across the flow of air.
6.2 The pump is started and the that tested area of the specimen will be in line and across the flow of air.
6.3 The manometers M1 and M2 are read and recorded.
6.4 The procedure described in steps 6.1~6.3 is carried out on 5 different areas of the mask and readings averaged.

7. Calculation

For each test specimen calculate the different pressure ΔP as follows:

$$\Delta P = \frac{(X_{m1}-X_{m2})}{4.9}$$

X_{m1}: is pressure in Pa, manometer M1, mean of 5 test areas, low pressure side of the material;
X_{m2}: is pressure in Pa, manometer M2, mean of 5 test areas, high pressure side of the material;
4.9 is the cm^2 area of the test material;
ΔP is the different pressure per cm^2 of the test material expressed in Pa.

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8.Test results

Test Items*		Test Results	Test Methods
Different Pressure Test (Pa/cm^2)	1	35.9	EN 14683:2019 Annex C
	2	36.3	
	3	37.3	
	4	34.9	
	5	36.7	

Note:

1.The test report is the test results issued by the testing institution as requested by the consignor, it shall not determine the legitimacy of the product.

2.*denotes this test was carried out by external laboratory assessed as competent.

3.This report is for internal use only such as internal scientific research ,education, quality control, product R&D.

-END OF THE TEST REPORT-

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