

IPS TESTING

Test Report July 10, 2020 Page 1 of 4 SGS-IPS 01115-20

Report to: Bruce Powell

Exhibitmax - Biomax 2001 W. 94th St.

Ste. 101

Bloomington, MN 55431

Sample Identification: One Face Mask Sample

Date Received: July 6, 2020

Test(s) Requested: Resistance to Blood Penetration - ASTM F 1862

PO Number: Credit Card

Analysis of One Face Mask Sample

SGS-IPS Testing performed the testing listed above on one face mask sample provided by Exhibitmax - Biomax. The results are summarized in Table 1 on page 2.

If you have any questions, please contact us.

Authorized on behalf of MaiPa Xiong by

Lani Winger

Customer Service Lead

Signed_

Andrew Smits

Senior Lab Technician

Physical Testing

920-749-3040

Table 1. Resistance to Blood Penetration - ASTM F 1862

Surgical Face Masks





AT-1659

Resistance to Blood Penetration (Pass/Fail)

1 Pass 2 Pass 3 Pass 4 Pass 5 Pass 6 Pass 6 Pass 7 Pass 8 Pass 9 Pass 10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 30 Pass 31 Pass 32 Pass	4	D		
3 Pass 4 Pass 5 Pass 6 Pass 7 Pass 8 Pass 9 Pass 10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 30 Pass 31 Pass		Pass		
4 Pass 5 Pass 6 Pass 7 Pass 8 Pass 9 Pass 10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 20 Pass 21 Pass 22 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass		Pass		
5 Pass 6 Pass 7 Pass 8 Pass 9 Pass 10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 30 Pass 31 Pass		Pass		
6 Pass 7 Pass 8 Pass 9 Pass 10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass		Pass		
7 Pass 8 Pass 9 Pass 10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 30 Pass 31 Pass		Pass		
8 Pass 9 Pass 10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 30 Pass 31 Pass		Pass		
9		Pass		
10 Pass 11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	8	Pass		
11 Pass 12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	9	Pass		
12 Pass 13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	10	Pass		
13 Pass 14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	11	Pass		
14 Pass 15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	12	Pass		
15 Pass 16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	13	Pass		
16 Pass 17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	14	Pass		
17 Fail 18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	15	Pass		
18 Pass 19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	16	Pass		
19 Pass 20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	17	Fail		
20 Pass 21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	18	Pass		
21 Pass 22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	19	Pass		
22 Pass 23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	20	Pass		
23 Pass 24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	21	Pass		
24 Pass 25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	22	Pass		
25 Pass 26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	23	Pass		
26 Pass 27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	24	Pass		
27 Pass 28 Pass 29 Pass 30 Pass 31 Pass	25	Pass		
28 Pass 29 Pass 30 Pass 31 Pass	26	Pass		
29 Pass 30 Pass 31 Pass	27			
30 Pass 31 Pass	28	Pass		
30 Pass 31 Pass	29	Pass		
	30			
32 Pass	31	Pass		
	32			

Resistance to 31 Pass/1 Fail

Blood Penetration

Summary

Test Parameters

Test Pressure 160

(mmHg)

Lot Number 93192

Method(s) and Notes:

All valid results are included in the statistical analyses.

Revisions of SGS-IPS methods when used are current at the time of testing.

Samples tested and conditioned in TAPPI standard conditions unless requested otherwise by customer.

Samples were not preconditioned.

ASTM F 1862/F 1862M-17 Standard Test Method for Resistance of Medical Face Masks to Penetration by Synthetic Blood (Horizontal Projection of Fixed Volume at a Known Velocity) A 2 mL check was performed at the beginning, middle and end of each sample.

Synthetic blood is purchased from Johnson, Moen & Co. Surface Tension is not independently verified after receipt and unused synthetic blood is stored in original plastic bottles.

Analyzed by: AS

Quality review by: TFH

Date(s) of testing: July 9, 2020

Room Conditions

	Relative Humidity (%)	Temperature (°F)
Conditioning Environment	50.1	74.7
Maximum during testing Minimum during testing	50.7 50.1	74.7 74.5

Note: See the method(s) cited above for available estimates of measurement uncertainty. Unless otherwise noted, sampling was performed by customer.

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Parameters and Instruments Appendix Resistance to Blood Penetration - ASTM F 1862

Chamber Humidity (%RH) 81.9 Chamber Temperature (°F)

70.1