

Job No./Report No: 20-006510

Date: 14/07/2020

Client: Textil Manly SA

Code: CL-0838

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The following sample was (were) submitted and identified by the client as:

Job no Report No.:	20-006510
Receiving Date:	06/07/2020
Test Start Date:	06/07/2020
Test End Date:	14/07/2020
Sample description:	RAW MATERIAL

Serie :
 Batch No.:
 Reference No.: **TEJIDO BLANCO TEC 7191/1000/205104**
 Composition indicated: **UNKNOWN**

SUMMARY OF TEST CONCLUSIONS

SOP description	Conclusions
SOP305 - Change of appearance after washing (Garments and fabrics)	Pass
SOP 342- Bacterial Filtration Efficiency (BFE)	Pass
SOP 342- Bacterial Filtration Efficiency (BFE) - After Washing	Pass
SOP106 - Determination of breathability (Differential Pressure) - Original	Pass
SOP106 - Determination of breathability (Differential Pressure) - After Washing	Pass

Sample Tested



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SOP305 - Change of appearance after washing (Garments and fabrics)

ID	ID AMSLab	Description	Conclusion
4	S-200706-00036	FABRIC WHITE (5 WASHING CYCLES AT 60°C)	Pass
ID	ID AMSLab	Description	Conclusion
8	S-200714-00070	FABRIC WHITE (10 WASHING CYCLES AT 60°C)	Pass

	CAS	S-200706-00036	S-200714-00070
Change of appearance after washing		No change	No change
Number of cycles		5	10
Washing Temperature		60°C	60°C

Notes:

Note 1: Washing and drying process applied based on UNE-EN ISO 6330:2012

Note 2:

- Detergent: 20 gr of Commercial detergent / - Drying procedure: Air dry without tumble dry.
- n.a.: not applicable
- Requirement: No obvious change/colour/shape/appearance/seams/embroidery/trimmings/applications

Note 3 - Meaning of the grades of change of appearance:

- No change in appearance after washing and drying process
- Slight change in appearance after washing and drying process
- Moderate change in appearance after washing and drying process
- Severe change in appearance after washing and drying process

SOP 342- Bacterial Filtration Efficiency (BFE)

ID	ID AMSLab	Description	Conclusion
5	S-200706-00037	FABRIC WHITE (ORIGINAL)	Pass

	CAS	S-200706-00037
Test 1: Bacterial Filtration Efficiency		92.0
Test 1: Number of Bacteria		196
Test 2: Bacterial Filtration Efficiency		92.0
Test 2: Number of Bacteria		194
Test 3: Bacterial Filtration Efficiency		92.2
Test 3: Number of Bacteria		191
Test 4: Bacterial Filtration Efficiency		92.3
Test 4: Number of Bacteria		189
Test 5: Bacterial Filtration Efficiency		92.3
Test 5: Number of Bacteria		189

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Notes:

Test Metod Ref: TS EN 14683:2019 Medical Face Masks, Requirements and Test Methods

Specifications applied:

Spanish specification UNE 0065:2020: 90%

European specification CWA 17553:2020: Level 90% and Level 70%

Report unit Bacterial Filtration Efficiency = %

Report unit Number of Bacteria = cfu/mL

A specimen of the mask material is clamped between a impactor and an aerosol chamber. An aerosol of Staphylococcus aureus is introduced into the aerosol chamber and drawn through the mask material and the impactor under vacuum. The bacterial filtration efficiency of the mask is given by the number of colony forming units passing through the medical face mask material expressed as a percentage of the number of colony forming units present in the challenge aerosol.

Test Flow Rate: 28,3 L/min

Test Flow Time: 2 minute

Sample Sizes: 10x10 cm²

Microorganism: Staphylococcus aureus ATCC 6538

Bacterial concentration (cfu/ml) : 5x10⁵ cfu/ml

Incubation conditions: 24 hour, 35C ± 2C

Positive control sample average of number of Bacteria (C): 2.44x10³ cfu/ml

(*) Test subcontracted. Results in subcontracted report number: 20021329

SOP 342- Bacterial Filtration Efficiency (BFE) - After Washing

ID	ID AMSLab	Description	Conclusion
6	S-200706-00039	FABRIC WHITE (AFTER 5 WASHING CYCLES AT 60°C)	Pass
ID	ID AMSLab	Description	Conclusion
7	S-200706-00040	FABRIC WHITE (AFTER 10 WASHING CYCLES AT 60°C)	Pass

	CAS	S-200706-00039	S-200706-00040
Test 1: Bacterial Filtration Efficiency		91.5	90.0
Test 1: Number of Bacteria		170	201
Test 2: Bacterial Filtration Efficiency		91.1	90.1
Test 2: Number of Bacteria		179	199
Test 3: Bacterial Filtration Efficiency		91.0	90.3
Test 3: Number of Bacteria		180	195
Test 4: Bacterial Filtration Efficiency		90.8	90.5
Test 4: Number of Bacteria		185	190
Test 5: Bacterial Filtration Efficiency		90.2	90.2
Test 5: Number of Bacteria		196	196

Notes:

Test Metod Ref: TS EN 14683:2019 Medical Face Masks, Requirements and Test Methods

Specifications applied:

Spanish specification UNE 0065:2020: 90%

European specification CWA 17553:2020: Level 90% and Level 70%

Report unit Bacterial Filtration Efficiency = %

Report unit Number of Bacteria = cfu/mL

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A specimen of the mask material is clamped between an impactor and an aerosol chamber. An aerosol of *Staphylococcus aureus* is introduced into the aerosol chamber and drawn through the mask material and the impactor under vacuum. The bacterial filtration efficiency of the mask is given by the number of colony forming units passing through the medical face mask material expressed as a percentage of the number of colony forming units present in the challenge aerosol.

Test Flow Rate: 28,3 L/min
 Test Flow Time: 2 minute
 Sample Sizes: 10x10 cm²
 Microorganism: *Staphylococcus aureus* ATCC 6538
 Bacterial concentration (cfu/ml): 5x10⁵ cfu/ml
 Incubation conditions: 24 hour, 35C ± 2C
 Positive control sample average of number of Bacteria (C): 2x10³ cfu/ml

(* Test subcontracted. Results in subcontracted report number: 20022799 / 20022800

SOP106 - Determination of breathability (Differential Pressure) - Original

ID	ID AMSLab	Description	Conclusion
1	S-200706-00032	FABRIC WHITE (ORIGINAL)	Pass

	CAS	S-200706-00032
Average Differential pressure (Pa/cm ²)		15
Value 1 Differential pressure (Pa/cm ²)		15
Value 2 Differential pressure (Pa/cm ²)		15
Value 3 Differential pressure (Pa/cm ²)		16
Value 4 Differential pressure (Pa/cm ²)		14
Value 5 Differential pressure (Pa/cm ²)		15

Notes:

- Note 1: Applied standard UNE-EN 14683:2019 and Specification UNE 0064-1, 0064-2 and 0065
- Note 2: Size of test specimen: 4.9 cm²
- Note 3: Tested area of the test specimen: 2.5 cm
- Note 4: Flow of air: (8 ± 0.2) l/min
- Note 5: Velocity of 272 l/m²/s or 272 mm/s
- Note 6: Report Unit: Pa and P (Pa/cm²)
- Note 7: Number of measurements: 5
- Note 8: Conditioned samples: 4 hours at 21 ± 5 °C and 85 ± 5 HR
- Note 9: n.a. = not applicable

Requirement by standard:

- Non-reusable Hygienic Mask by UNE 0064-1-2: 60 Pa/cm²
- Reusable Hygienic Mask by UNE 0065: 60 Pa/cm²
- European specification CWA 17553:2020: 70 Pa/cm²

Specific Notes:

- (**) The result is out of specifications

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SOP106 - Determination of breathability (Differential Pressure) - After Washing

ID	ID AMSLab	Description	Conclusion
2	S-200706-00034	FABRIC WHITE (AFTER 5 WASHING CYCLES AT 60°C)	Pass
ID	ID AMSLab	Description	Conclusion
3	S-200706-00035	FABRIC WHITE (AFTER 10 WASHING CYCLES AT 60°C)	Pass

	CAS	S-200706-00034	S-200706-00035
Average Differential pressure (Pa/cm2)		13	12
Value 1 Differential pressure (Pa/cm2)		13	12
Value 2 Differential pressure (Pa/cm2)		14	11
Value 3 Differential pressure (Pa/cm2)		13	12
Value 4 Differential pressure (Pa/cm2)		13	13
Value 5 Differential pressure (Pa/cm2)		13	13

Notes:

- Note 1: Applied standard UNE-EN 14683:2019 and Specification UNE 0064-1, 0064-2 and 0065
- Note 2: Size of test specimen: 4.9 cm²
- Note 3: Tested area of the test specimen: 2.5 cm
- Note 4: Flow of air: (8 ± 0.2) l/min
- Note 5: Velocity of 272 l/m²/s or 272 mm/s
- Note 6: Report Unit: Pa and P (Pa/cm²)
- Note 7: Number of measurements: 5
- Note 8: Conditioned samples: 4 hours at 21 ± 5 °C and 85 ± 5 HR
- Note 9: n.a. = not applicable

Requirement by standard:

- Non-reusable Hygienic Mask by UNE 0064-1-2: 60 Pa/cm²
- Reusable Hygienic Mask by UNE 0065: 60 Pa/cm²
- European specification CWA 17553:2020: 70 Pa/cm²

Specific Notes:

- (**) The result is out of specifications

Issue Date: 14/07/2020

Signed: Manuel Lolo



General Manager

Signed: Pablo Perez



Chemical Lab Manager

Signed: Esteban Ramirez



Physical Lab Manager

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