

**Job No./Report No:** 20-008899

**Date:** 17/09/2020

**Client:** Castilla Textil 2, S.L.

**Code:** CL-1432

**Address:** Cr/Navahermosa-Quintanar km 90,200 TEMBLEQUE TOLEDO ESPAÑA

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

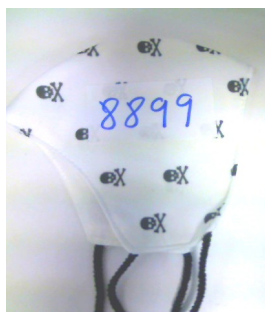
Job no Report No.:	20-008899
Receiving Date:	01/09/2020
Test Start Date:	02/09/2020
Test End Date:	17/09/2020
Sample description:	MASK

Serie :   
 Batch No.:   
 Reference No.: **MASCARILLAS BLANCAS CALAVERAS**  
 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-200902-00004	MASK WHITE AND CONTINUOUS PRINT BLACK (25 WASHING CYCLES AT 60°C)	Pass

	CAS	S-200902-00004
Change of appearance after washing		No change
Number of cycles		25
Washing Temperature		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
2	S-200902-00002	MASK WHITE AND CONTINUOUS PRINT BLACK (ORIGINAL)	Pass

	CAS	S-200902-00002
Test 1: Bacterial Filtration Efficiency		91.3
Test 1: Number of Bacteria		200
Test 2: Bacterial Filtration Efficiency		91.7
Test 2: Number of Bacteria		190
Test 3: Bacterial Filtration Efficiency		91.9
Test 3: Number of Bacteria		187
Test 4: Bacterial Filtration Efficiency		92.6
Test 4: Number of Bacteria		170
Test 5: Bacterial Filtration Efficiency		92.8
Test 5: Number of Bacteria		166

Notes:

Test Method: EN 14683:2019+AC:2019 (TS EN 14683+AC:2019) Annex-B / Medical Face Masks - Requirements and Test Methods

Requirements by specifications:

Spanish specification UNE 0064:2020: >=95%

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Spanish specification UNE 0065:2020:  $\geq 90\%$   
 European specification CWA 17553:2020: Level  $\geq 90\%$  and  
 European specification CWA 17553:2020: Level  $\geq 70\%$

Other requirements:

- Surgical Mask type I by UNE-EN 14683:  $\geq 95\%$
- Surgical Mask type II by UNE-EN 14683:  $\geq 98\%$
- Surgical Mask type IIR by UNE-EN 14683:  $\geq 98\%$

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 cm<sup>2</sup>  
 Microorganism: Staphylococcus aureus ATCC 6538  
 Bacterial concentration (cfu/ml): 5x10E5 cfu/ml  
 Incubation conditions: 24 hour, 35C  $\pm$  2C  
 Positive control sample average of number of Bacteria (C): 2.3x10E3 cfu/ml

(\*) Test subcontracted and accredited for medical mask tests (EN 14683). Results in subcontracted report number: 20032809

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

ID	ID AMSLab	Description	Conclusion
5	S-200902-00005	MASK WHITE AND CONTINUOUS PRINT BLACK (AFTER 25 WASHING CYCLES AT 60°C)	Pass

	CAS	S-200902-00005
Test 1: Bacterial Filtration Efficiency		90.0
Test 1: Number of Bacteria		231
Test 2: Bacterial Filtration Efficiency		90.3
Test 2: Number of Bacteria		224
Test 3: Bacterial Filtration Efficiency		90.5
Test 3: Number of Bacteria		219
Test 4: Bacterial Filtration Efficiency		90.0
Test 4: Number of Bacteria		229
Test 5: Bacterial Filtration Efficiency		90.4
Test 5: Number of Bacteria		220

Notes:

Test Method: EN 14683:2019+AC:2019 (TS EN 14683+AC:2019) Annex-B / Medical Face Masks - Requirements and Test Methods

Requirements by specifications:

Spanish specification UNE 0064:2020:  $\geq 95\%$   
 Spanish specification UNE 0065:2020:  $\geq 90\%$   
 European specification CWA 17553:2020: Level  $\geq 90\%$  and  
 European specification CWA 17553:2020: Level  $\geq 70\%$

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Other requirements:

- Surgical Mask type I by UNE-EN 14683:  $\geq 95\%$
- Surgical Mask type II by UNE-EN 14683:  $\geq 98\%$
- Surgical Mask type IIR by UNE-EN 14683:  $\geq 98\%$

Report unit Bacterial Filtration Efficiency = %

Report unit Number of Bacteria = cfu/mL

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 cm<sup>2</sup>

Microorganism: Staphylococcus aureus ATCC 6538

Bacterial concentration (cfu/ml): 5x10E5 cfu/ml

Incubation conditions: 24 hour, 35C  $\pm$  2C

Positive control sample average of number of Bacteria (C): 2.3x10E3 cfu/ml

(\*) Test subcontracted and accredited for medical mask tests (EN 14683). Results in subcontracted report number: 20032810

## **SOP106 - Determination of breathability (Differential Pressure) - Original**

ID	ID AMSLab	Description	Conclusion
1	S-200902-00001	MASK WHITE AND CONTINUOUS PRINT BLACK (ORIGINAL)	Pass

	CAS	S-200902-00001
Average Differential pressure (Pa/cm <sup>2</sup> )		27
Value 1 Differential pressure (Pa/cm <sup>2</sup> )		27
Value 2 Differential pressure (Pa/cm <sup>2</sup> )		29
Value 3 Differential pressure (Pa/cm <sup>2</sup> )		28
Value 4 Differential pressure (Pa/cm <sup>2</sup> )		26
Value 5 Differential pressure (Pa/cm <sup>2</sup> )		26

Notes:

Note 1: Applied standard UNE-EN 14683:2019 and Spanish Specification UNE 0064-1, 0064-2, 0065 and European Specification CWA 17553

Note 2: Size of test specimen: 4.9 cm<sup>2</sup>

Note 3: Tested area of the test specimen: 2.5 cm

Note 4: Flow of air: (8  $\pm$  0.2) l/min

Note 5: Velocity of 272 l/m<sup>2</sup>/s or 272 mm/s

Note 6: Report Unit: Pa and P (Pa/cm<sup>2</sup>)

Note 7: Number of samples tested: 5 / Number of measurements: 5

Note 8: Conditioned samples: 4 hours at 21  $\pm$  5 °C and 85  $\pm$  5 HR

Note 9: n.a. = not applicable

Requirements by specifications:

- Non-reusable Hygienic Mask by UNE 0064-1-2: < 60 Pa/cm<sup>2</sup>
- Reusable Hygienic Mask by UNE 0065: < 60 Pa/cm<sup>2</sup>
- European specification CWA 17553:2020:  $\leq 70$  Pa/cm<sup>2</sup>

Other requirements:

- Surgical Mask type I by UNE-EN 14683: < 40 Pa/cm<sup>2</sup>
- Surgical Mask type II by UNE-EN 14683: < 40 Pa/cm<sup>2</sup>

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- Surgical Mask type IIR by UNE-EN 14683: < 60 Pa/cm<sup>2</sup>

Specific Notes:

(\*\*) The result is out of specifications

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

ID	ID AMSLab	Description	Conclusion
3	S-200902-00003	MASK WHITE AND CONTINUOUS PRINT BLACK (AFTER 25 WASHING CYCLES AT 60°C)	Pass

	CAS	S-200902-00003
Average Differential pressure (Pa/cm <sup>2</sup> )		30
Value 1 Differential pressure (Pa/cm <sup>2</sup> )		31
Value 2 Differential pressure (Pa/cm <sup>2</sup> )		30
Value 3 Differential pressure (Pa/cm <sup>2</sup> )		31
Value 4 Differential pressure (Pa/cm <sup>2</sup> )		29
Value 5 Differential pressure (Pa/cm <sup>2</sup> )		31

Notes:

Note 1: Applied standard UNE-EN 14683:2019 and Spanish Specification UNE 0064-1, 0064-2, 0065 and European Specification CWA 17553

Note 2: Size of test specimen: 4.9 cm<sup>2</sup>

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/m<sup>2</sup>/s or 272 mm/s

Note 6: Report Unit: Pa and P (Pa/cm<sup>2</sup>)

Note 7: Number of samples tested: 5 / Number of measurements: 5

Note 8: Conditioned samples: 4 hours at 21 ± 5 °C and 85 ± 5 HR

Note 9: n.a. = not applicable

Requirements by specifications:

- Non-reusable Hygienic Mask by UNE 0064-1-2: < 60 Pa/cm<sup>2</sup>

- Reusable Hygienic Mask by UNE 0065: < 60 Pa/cm<sup>2</sup>

- European specification CWA 17553:2020: <= 70 Pa/cm<sup>2</sup>

Other requirements:

- Surgical Mask type I by UNE-EN 14683: < 40 Pa/cm<sup>2</sup>

- Surgical Mask type II by UNE-EN 14683: < 40 Pa/cm<sup>2</sup>

- Surgical Mask type IIR by UNE-EN 14683: < 60 Pa/cm<sup>2</sup>

Specific Notes:

(\*\*) The result is out of specifications

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Issue Date: 17/09/2020

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