TEST REPORT

Job No./Report No: 20-008926
Date: **17/09/2020**

Client: CLOQUER, S.A. **Code:** CL-1156
Address: CL/Josep Ros i Ros, 22 P. I. La Clota SANTANDER CANTABRIA ESPAÑA
Attn: **e-MAIL:** null
Tel: 0034 936535250 **Fax:**

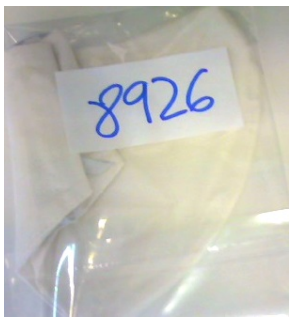
The following sample was (were) submitted and identified by the client as:

		Job no Report No.:	**20-008926**
Serie :		Receiving Date:	**02/09/2020**
Batch No.:		Test Start Date:	**02/09/2020**
Reference No.:	**MASCARILLAS SANITY MASK-CWA**	Test End Date:	**17/09/2020**
Composition indicated:	**Unknown**	Sample description:	**MASK**

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	See Results
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-200902-00044	MASK WHITE (40 WASHING CYCLES AT 60ºC)	Pass

	CAS	S-200902-00044
Change of appearance after washing		Slight change
Number of cycles		40
Washing Temperature		60ºC

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-200902-00042	MASK WHITE (ORIGINAL)	Pass

	CAS	S-200902-00042
Test 1: Bacterial Filtration Efficiency		90.2
Test 1: Number of Bacteria		274
Test 2: Bacterial Filtration Efficiency		90.6
Test 2: Number of Bacteria		262
Test 3: Bacterial Filtration Efficiency		90.0
Test 3: Number of Bacteria		280
Test 4: Bacterial Filtration Efficiency		91.0
Test 4: Number of Bacteria		251
Test 5: Bacterial Filtration Efficiency		90.4
Test 5: Number of Bacteria		270

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

Other requirements:
- Surgical Mask type I by UNE-EN 14683: >= 95%
- Surgical Mask type II by UNE-EN 14683: >= 98%
- Surgical Mask type IIR by UNE-EN 14683: >= 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 cm2
Microorganism: Staphylococcus aureus ATCC 6538
Bacterial concentration (cfu/ml): 5x10E5 cfu/ml
Incubation conditions: 24 hour, 35C ± 2C
Positive control sample average of number of Bacteria (C): 2.8x10E3 cfu/ml

(*) Test subcontracted and accredited for medical mask tests (EN 14683). Results in subcontracted report number: 20032806

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

ID	ID AMSLab	Description	Conclusion
5	S-200902-00045	MASK WHITE (AFTER 40 WASHING CYCLES AT 60ºC)	See Results

	CAS	S-200902-00045
Test 1: Bacterial Filtration Efficiency		87.8
Test 1: Number of Bacteria		341
Test 2: Bacterial Filtration Efficiency		88.2
Test 2: Number of Bacteria		330
Test 3: Bacterial Filtration Efficiency		88.3
Test 3: Number of Bacteria		328
Test 4: Bacterial Filtration Efficiency		87.2
Test 4: Number of Bacteria		359
Test 5: Bacterial Filtration Efficiency		87.1
Test 5: Number of Bacteria		361

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%
Spanish specification UNE 0065:2020: >= 90%
European specification CWA 17553:2020: Level >= 90% and
European specification CWA 17553:2020: Level >= 70%

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Other requirements:
- Surgical Mask type I by UNE-EN 14683: >= 95%
- Surgical Mask type II by UNE-EN 14683: >= 98%
- Surgical Mask type IIR by UNE-EN 14683: >= 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 cm2
Microorganism: Staphylococcus aureus ATCC 6538
Bacterial concentration (cfu/ml): 5x10E5 cfu/ml
Incubation conditions: 24 hour, 35C ± 2C
Positive control sample average of number of Bacteria (C): 2.8x10E3 cfu/ml

(*) Test subcontracted and accredited for medical mask tests (EN 14683). Results in subcontracted report number: 20032808

SOP106 - Determination of breathability (Differential Pressure) - Original

ID	ID AMSLab	Description	Conclusion
1	S-200902-00041	MASK WHITE (ORIGINAL)	Pass

	CAS	S-200902-00041
Average Differential pressure (Pa/cm2)		25
Value 1 Differential pressure (Pa/cm2)		24
Value 2 Differential pressure (Pa/cm2)		24
Value 3 Differential pressure (Pa/cm2)		26
Value 4 Differential pressure (Pa/cm2)		29
Value 5 Differential pressure (Pa/cm2)		23

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 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 samples tested: 5 / Number of measurements: 5
Note 8: Conditioned samples: 4 hours at 21 ± 5 ºC and 85 ± 5 HR
Note 9: n.a. = not applicable

Requirements by specifications:
- 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

Other requirements:
- Surgical Mask type I by UNE-EN 14683: < 40 Pa/cm2
- Surgical Mask type II by UNE-EN 14683: < 40 Pa/cm2

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- Surgical Mask type IIR by UNE-EN 14683: < 60 Pa/cm2

Specific Notes:
(**) The result is out of specifications

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

ID	ID AMSLab	Description	Conclusion
3	S-200902-00043	MASK WHITE (AFTER 40 WASHING CYCLES AT 60ºC)	Pass

	CAS	S-200902-00043
Average Differential pressure (Pa/cm2)		35
Value 1 Differential pressure (Pa/cm2)		33
Value 2 Differential pressure (Pa/cm2)		36
Value 3 Differential pressure (Pa/cm2)		37
Value 4 Differential pressure (Pa/cm2)		35
Value 5 Differential pressure (Pa/cm2)		33

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 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 samples tested: 5 / Number of measurements: 5
Note 8: Conditioned samples: 4 hours at 21 ± 5 ºC and 85 ± 5 HR
Note 9: n.a. = not applicable

Requirements by specifications:
- 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

Other requirements:
- Surgical Mask type I by UNE-EN 14683: < 40 Pa/cm2
- Surgical Mask type II by UNE-EN 14683: < 40 Pa/cm2
- Surgical Mask type IIR by UNE-EN 14683: < 60 Pa/cm2

Specific Notes:
(**) The result is out of specifications

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Issue Date: 17/09/2020

Signed: Manuel Lolo	Signed: Pablo Perez	Signed: Esteban Ramirez
		
General Manager	Chemical Lab Manager	Physical Lab Manager

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