TEST REPORT

Job No./Report No: 20-004381
Date: **14/05/2020**

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

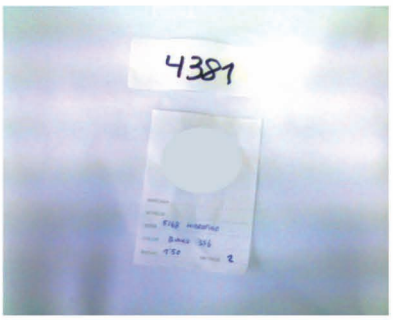
Serie :	
Batch No.:	
Reference No.:	**ART.5168 NEOPRENO HIDROFUGADO Y ANTIBACTERIANO BLANCO**
Composition indicated:	**92% polyester, 8% elastane**

Job no Report No.:	**20-004381**
Receiving Date:	**27/04/2020**
Test Start Date:	**27/04/2020**
Test End Date:	**14/05/2020**
Sample description:	**RAW MATERIAL**

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 5 wash cycles	Pass
SOP106 - Determination of breathability (Differential Pressure)	Pass

Sample Tested



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

ID	ID AMSLab	Description	Conclusion
5	S-200427-00068	FABRIC WHITE (5 WASHING CYCLES AT 60ºC)	Pass

	CAS	S-200427-00068
Change of appearance after washing		No change
Number of cycles		5
Washing Temperature		60ºC

Notes:
Note 1: Washing and drying process applied based on UNE-EN ISO 6330:2001

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
3	S-200427-00066	FABRIC WHITE (ORIGINAL - 1 LAYER)	Pass

	CAS	S-200427-00066
Test 1: Bacterial Filtration Efficiency		92.5
Test 1: Number of Bacteria		585
Test 2: Bacterial Filtration Efficiency		91.6
Test 2: Number of Bacteria		542
Test 3: Bacterial Filtration Efficiency		91.6
Test 3: Number of Bacteria		521
Test 4: Bacterial Filtration Efficiency		91.7
Test 4: Number of Bacteria		506
Test 5: Bacterial Filtration Efficiency		92.0
Test 5: Number of Bacteria		528

Notes:

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

Specifications:
- UNE 0065: > 90%

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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: Fabric 1 layer
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): 2.6x10E3 cfu/ml

(*) Test subcontracted. Results in subcontracted report number: 20014148

SOP 342- Bacterial Filtration Efficiency (BFE) after 5 wash cycles

ID	ID AMSLab	Description	Conclusion
4	S-200427-00067	FABRIC WHITE (AFTER 5 WASHING CYCLES AT 60ºC - 1 LAYER)	Pass

	CAS	S-200427-00067
Test 1: Bacterial Filtration Efficiency		90.5
Test 1: Number of Bacteria		534
Test 2: Bacterial Filtration Efficiency		90.6
Test 2: Number of Bacteria		531
Test 3: Bacterial Filtration Efficiency		90.6
Test 3: Number of Bacteria		530
Test 4: Bacterial Filtration Efficiency		90.7
Test 4: Number of Bacteria		527
Test 5: Bacterial Filtration Efficiency		90.0
Test 5: Number of Bacteria		520

Notes:

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

Specifications:
- UNE 0065: > 90%

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

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Date: **14/05/2020**

Sample Sizes: Fabric 1 layer
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): 2.6x10E3 cfu/ml

(*) Test subcontracted. Results in subcontracted report number: 20014149

SOP106 - Determination of breathability (Differential Pressure)

ID	ID AMSLab	Description	Conclusion
1	S-200427-00064	FABRIC WHITE (ORIGINAL - 1 LAYER)	Pass

ID	ID AMSLab	Description	Conclusion
2	S-200427-00065	FABRIC WHITE (AFTER 5 WASHING CYCLES AT 60ºC - 1 LAYER)	Pass

	CAS	S-200427-00064	S-200427-00065
Average Differential pressure (Pa/cm2)		28	38
Value 1 Differential pressure (Pa/cm2)		25	38
Value 2 Differential pressure (Pa/cm2)		28	38
Value 3 Differential pressure (Pa/cm2)		28	38
Value 4 Differential pressure (Pa/cm2)		29	39
Value 5 Differential pressure (Pa/cm2)		28	38

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 ºC 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

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

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Issue Date: 14/05/2020

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

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