

Ecully, le 8/6/2020

**TEST REPORT\***

\* A signed copy is kept at IFTH

**PROTOCOL**

Tests carried out in the context of the COVID-19 health crisis according to the internal protocol inspired by the DGA protocol.

For further information on this test report, contact IFTH

**ANALYSIS REPORT**

Report no	Date of Report	Original of the report signed by:
2020-04-16-121-1	08/06/2020	Mr Jacques-Hervé Levy Director General of IFTH

**TYPE OF SAMPLES SUBMITTED**

<b>UNS1:</b> Individual mask for use by professionals in contact with the public.	<b>NON COMPATIBLE</b>
<b>UNS2:</b> Mask for collective aim to protect an entire group wearing these masks.	<b>COMPATIBLE</b>

**REMARKS**

The results do not allow certification or homologation according to the standards NF EN 149, NF EN 14683, nor according to any other standard or regulation.

**COMPOSITION OF THE REPORT**

2 pages

In the same way as the DGA, the tests are carried out in application of the inter-ministerial information note of March 29, 2020 relating to the new categories of masks reserved for non-sanitary uses.

According to the terms of this note, they must be completed by a test carried for 4 hours, to be carried out by the manufacturer. The mask must not have a sagittal seam (vertical nose to mouth).

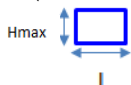
**TRANSMITTED SAMPLES**

<b>Registration number</b>	2020-04-16-121
<b>Provider</b>	PHARMAOUEST
<b>Sample reference</b>	POI S1
<b>Descriptions of the samples delivered</b>	Layer 1: 100% cotton 245 g / m <sup>2</sup> black 36x18 Layer 2: White Tencel 70% lyocell 30% viscose 120 g / m <sup>2</sup>

**TESTS CARRIED OUT**

The IFTH tests are inspired by the test protocol described in the DGA document of March 25, 2020

**RESULTS**

<b>Pretreatment:</b>	30 washing cycles 60 ° C 1 point drum drying and ironing 120 ° C		
<b>Validation of results</b>	Marlène PEYRILLOUS Chemistry laboratory manager		
<b>Use cases</b>	<b>Screening retention usage (*)</b>		<b>Comment</b>
<b>Feature</b>	<b>Measures</b>		
Air permeability (in L.m-2.S-1)	vacuum 100 Pa	254	/
Protection against aerosols (in%)	3 µm particles	79	/
Dimensional measurements	(L x H max) 	NM	/

(\*) Usage retention of projections: Flow measured from inside to outside, at expiration

#### CONCLUSION

In accordance with the inter-ministerial information note of March 29, 2020 relating to the new categories of masks reserved for non-sanitary uses, the product (mask or complex) tested has an air permeability of 254 Lm-2.S-1 and a filtration efficiency of the emitted particles at 3 µm of 79%

**According to the test protocol developed by IFTH, the material is: Compatible with use of the UNS2 mask type**

**The results of this report are only valid for samples tested at IFTH.**

It is recalled that the IFTH does not validate either the design or the size of the masks. The attached measurements are given for information. In accordance with the note of March 29, to avoid leaks at the edges of the mask, the manufacturer must verify that it allows an adjustment on the face with a cover of the nose and chin and that it does not have a sagittal seam (vertical nose-mouth). We also draw your attention to the fact that the measurement of breathability must be supplemented by a test carried out for 4 hours, to be carried out by the manufacture

#### TEST DESCRIPTIVE APPENDIX

##### **Air permeability**

The breathability of the material is analysed using a permeability meter. The measurement surface is 20 cm<sup>2</sup>.

The surface flow rate of air (L.M-2.S-1) passing through the material is measured at a vacuum set at 100 PA.

The inter-ministerial information note of March 29, 2020 relating to the new categories of masks reserved for sanitary uses imposes a minimum flow of 96 Lm-2.S-1. The measurement of the breathability above must be supplemented by a test carried over 4 hours, to be carried out by the manufacturer.

##### **Filtration efficiency**

The bench used is an aerosol filtration bench inspired by the tulip bench detailed in the inter-ministerial note of the DGA of March 25, 2020. The product (mask or complex) is cut out with a punch to make two discs of 26 mm in diameter per measurement (3 measurements performed) The samples are placed in a vein containing an aerosol. The aerosol concentrations in the vein and in the flow having passed through the sample inwards to outwards are measured. The announced result is the percentage of particles of diameters 3 µm and 1 µm stopped by the material.

E = 1 - caval / Camont

The inter-ministerial information note of March 29, 2020 relating to the new categories of masks reserved for non-sanitary uses requires filtration of the 3 µm particles emitted from: UNS 1: Individual mask for use by professionals in contact with the public (E> 90%) UNS 2: Mask with collective aim to protect an entire group wearing these masks (E> 70%) Note: The filtration efficiency is only measured if the permeability air is greater than 96 Lm-2.S-1