

## ANTIMICROBIAL PROTECTIVE FILM

**Antimicrobial film by CBS Medical:** innovative solution against bacteria, viruses and mould which proliferate in the surfaces.

CBS Medical has developed a new adhesive, protective antimicrobial film which is suitable in every surface of high contact frequency.

The adhesive film inhibits the growth of a wide range of microbes and it provides a long-lasting protection.

It guarantees to the users a high standard of hygiene and security, by reducing the risk of infections.

The CBS Medical's protective film is highly innovative, because it is antibacterial both in the surface and also in the lower part. For this reason, if it is placed over an unsafe surface, this one will become antibacterial too, thanks to the water-based antimicrobial glue.

The product is tested:

**ISO 21702:2019**  
**ISO 22196:2011**

**SARS-CoV-2\_COV2019 ITALY/INMI1**  
**Certificate Number: 1040267.173/14359**

It is suitable in the medical field: chairs in the waiting rooms, reception desks, computers, beds, handles and whatever needs to be protected.

It is also suitable for the public transport, used by many people every day.

The antibacterial film helps to protect any surface, for example public toilets of train/bus stations and airports, vending machines, shopping carts, school desks, cafeterias, restaurants, nursery schools, clinics, etc.

## It can be placed everywhere

### Which is the difference between antimicrobial and antibacterial?

An antimicrobial inhibits the growth and kills bacteria, fungus and mould. An antibacterial blocks the growth of specific bacteria.

### Biomaster efficacy

The Biomaster technology utilizes custom additives to create products which provide permanent protection against microbes. Biomaster guarantees 24/7 protection against the majority of dangerous microbes.

## Characteristics:

- Smooth, so easy to clean.
- Waterproof.
- Fast application.
- Resistant to the majority of chemical agents.
- Immediate grip and replaceable
- Duration: six months from the date of application.

## The film is available in two variations:



- Transparent, with the Biomaster logo printed in the whole area.
- Replaceable
- **Thickness:** 40 micron.
- **Colours:** transparent, with light blue logo.
- **Example of application:** handles, keyboard, medical instruments, etc.

We suggest to substitute the film every 2 months



- Transparent
- Replaceable
- with a label that has to be placed before the application of the film.
- **Thickness:** 100 micron
- **Example of application:** elevator buttons, vending machines, desks, tables, chairs, etc.

We suggest to substitute the film every 4/6 months

- Both kind of film can be used on touch screen.
- Available in rolls. Length 40mt. Variable height: from 10cm to 120cm.
- Standard sizes: 10, 20, 30, 40 cm.

# EXAMPLES:



# ISO 22196:2011 Antimicrobial Test Certificate

This is to certify that

## FILM DI PROTEZIONE ANTIMICROBICO / ANTIMICOBIAL PROTECTION FILM

supplied by

**CBS MEDICAL**

has been tested to ISO 22196:2011 standards and shown to reduce

*MRSA* by 99.98%

*Escherichia coli* by  $\geq 99.99\%$

Date of test: 12<sup>th</sup> August 2020

Test laboratory: Industrial Microbiological Services Limited  
Registered in England 3264423

Certificate Number: 1040267.173/14359



Dr Sue Bethel  
Technical Manager



Permanent antimicrobial protection for your products



Test report n° 20200019/01

**CBS MEDICAL S.R.L.**  
**Via Cappuccini, 129**  
**36015 Schio (VI)**

<b>Informazioni test</b>	
MATERIALE	MATERIALE PLASTICO
DENOMINAZIONE	<b>CBS Medical – Film di protezione antimicrobico</b>
METODO	<b>ISO 21702:2019 "Measurement of antiviral activity on plastics and other non porous surfaces"</b>
Data di ricevimento	30 Settembre 2020
Campioni	<ul style="list-style-type: none"> <li>• Campione trattato: 5 x 5 cm<sup>2</sup>, 0.2 mm spessore;</li> <li>• Campione non trattato: 5 x 5 cm<sup>2</sup>, 0.1 mm spessore;</li> <li>• Cover film: film di polipropilene 4 x 4 cm<sup>2</sup>, 0.1 mm spessore;</li> <li>• Tutti i campioni sono stati risciacquati con acqua distillata e autoclavati a 121°C per 15 minuti;</li> <li>• Volume inoculato per il test: 400 uL.</li> </ul>
Conservazione	Temperatura ambiente
Temperatura test	25°C ± 1°C
Temperatura incubazione	37°C ± 1°C
Ceppo virale	<b>SARS-CoV-2_COV2019 ITALY/INMI1</b>
Linea cellulare ospite permissiva	VERO E6
Tempo di contatto	2 h – 6 h

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### Calcolo dell'attività antivirale

L'attività antivirale è calcolata utilizzando la seguente formula:

$$R = U_t - A_t$$

dove

R è l'attività antivirale

$U_t$  è la media di log TCID<sub>50</sub>/cm<sup>2</sup> dei 3 campioni non trattati al tempo Tx

$A_t$  è la media di log TCID<sub>50</sub>/cm<sup>2</sup> dei 3 campioni trattati al tempo Tx

Log TCID<sub>50</sub> inoculato: 6.50

Test di citotossicità						
	Media Log TCID <sub>50</sub>	TCID <sub>50</sub> /100 ml	S (TCID <sub>50</sub> / ml)	Test valido se	Risultati	
Controllo negativo	5.05	10 <sup>5.05</sup>	$S_n = 10^{6.05}$	n/a	n/a	n/a
Campione non trattato	5.05	10 <sup>5.05</sup>	$S_u = 10^{6.05}$	$ S_n - S_u  \leq 0.5$	0	Valido
Campione trattato	4.75	10 <sup>4.75</sup>	$S_t = 10^{5.75}$	$ S_n - S_t  \leq 0.5$	0.3	Valido

### Risultati del test

	Tempo	Media Log TCID <sub>50</sub>	TCID <sub>50</sub> /100 ml	N (TCID <sub>50</sub> /cm <sup>2</sup> )	$U_t$	R $ U_t - A_t $	Test valido se il risultato è compreso tra
Campione non trattato	T0	5.33	10 <sup>5.33</sup>	8.55x10 <sup>5</sup>	n/a	n/a	2.5 x 10 <sup>5</sup> – 1.2 x 10 <sup>6</sup> (TCID <sub>50</sub> /cm <sup>2</sup> )
	T2	5.02	10 <sup>5.02</sup>	4.19x10 <sup>5</sup>	5.62	n/a	n/a
	T6	4.75	10 <sup>4.75</sup>	2.25x10 <sup>5</sup>	5.35	n/a	n/a

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	Tempo	Media Log TCID <sub>50</sub>	TCID <sub>50</sub> /100 ml	N (TCID <sub>50</sub> /cm <sup>2</sup> )	At	R  Ut-At	[% riduzione verso T0]
Campione trattato	T2	4.83	10 <sup>4.83</sup>	2.70 x 10 <sup>5</sup>	5.43	0.19	40%
	T6	4.00	10 <sup>4.00</sup>	4.00 x 10 <sup>4</sup>	4.60	0.75	91%

Questo rapporto di prova si riferisce solo al campione testato; il nome e la descrizione del campione sono dichiarati dal Cliente. Questo rapporto di prova può essere riprodotto solo integralmente; la riproduzione parziale deve essere autorizzata con approvazione scritta dal Laboratorio.  
° Test in service (stesso Gruppo).

Prato, 27 Ottobre 2020

Fine del Rapporto di Prova

Il Responsabile,

GIOVANNI  
MICHELI  
27.10  
.2020  
09:05:26  
UTC



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