



**MEPRA**

S.p.A.

H & R DIVISION

The new  
Antibacterial  
Nanotechnology  
Treatment

With COVID-19 forever changing the world forever, how we serve food to our guests in a safe manner will be a priority moving forward. Serving utensils are a common item that many people touch during service whether guests are being served or serving themselves.

Over the last three years, Mepra has developed an anti-bactericidal coating for serving utensils and equipment.

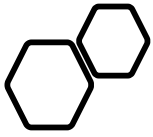
Mepra pioneered the PVD coating (titanium embedding process) to utensils and cutlery which carries a lifetime guarantee.

Now thanks to Mepra's patented system, the coating destroys bacteria cells by blocking their nutrition chain and the ability for the cells to divide and multiply.

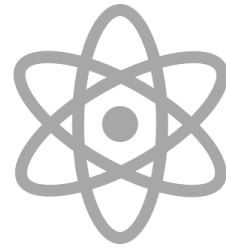
THIS SURFACE NOT ONLY INHIBITS BACTERIA GROWTH BUT DESTROYS IT. THE COATING LASTS FOR THE LIFE OF THE UTENSILS AND EVEN IMPROVES WITH TIME.

Locations such as: Hotels, Aged Care Facilities, Restaurants, Airline Lounges, Hospitals etc would all benefit from using Mepra's Antibacterial Treatment coating cutlery. Both to reduce bacteria spread as well as boost consumer confidence





# What is Antibacterial Nanotechnology Treatment?



MEPRA decided three years ago to reach a goal: to obtain an **antibacterial treatment** thanks to the PVD technology.

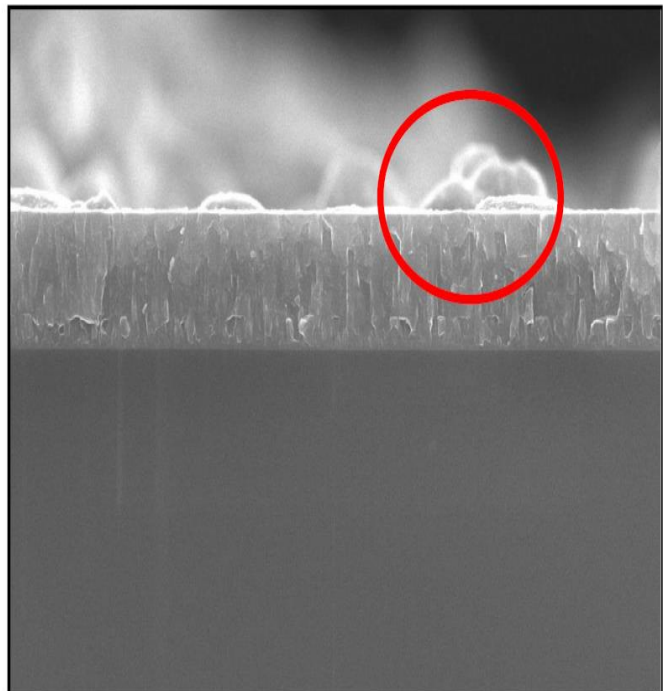
The result is Antibacterial Nanotechnology Treatment



It is the first and unique antibacterial treatment that adds to the extraordinary properties of our PVD technology an incredible capacity not only **to block the bacteria proliferation on surfaces** but also to **kill the bacteria on the surface of the flatware.**



# What is Antibacterial Nanotechnology Treatment?



The antibacterial ions form clusters (nano-inclusions) inside the complex architecture of the multilayer coating. These clusters release the antibacterial ions on the surface of the piece destroying the bacterial cell membrane by blocking its nutrition and interrupting the cell division cycle.

Thanks to the innovative production processes is able not only to completely inhibit the growth of bacteria but also to eliminate them, guaranteeing a durable and perfectly hygienic surface.

# "Competitors" of Antibacterial Nanotechnology Treatment

- 1) BACTERIOSTATIC MATERIALS
- 2) VARNISHES

None of these are real competitors because they are not effective solutions

# "Competitors" of Antibacterial Nanotechnology Treatment

## 1) BACTERIOSTATIC MATERIALS

Bacteriostatic materials do not kill bacteria, they just stop the proliferation.

PVD Nanotechnology Treatment kills bacteria

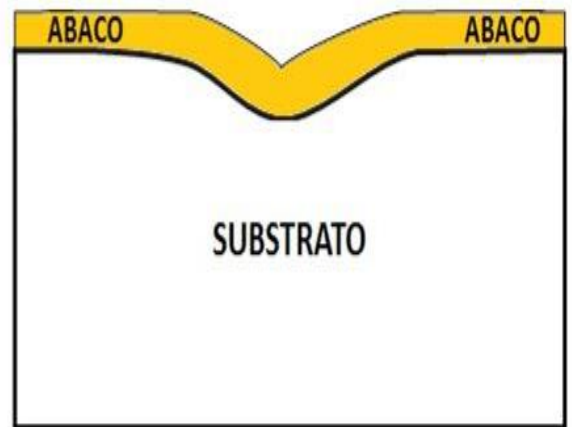
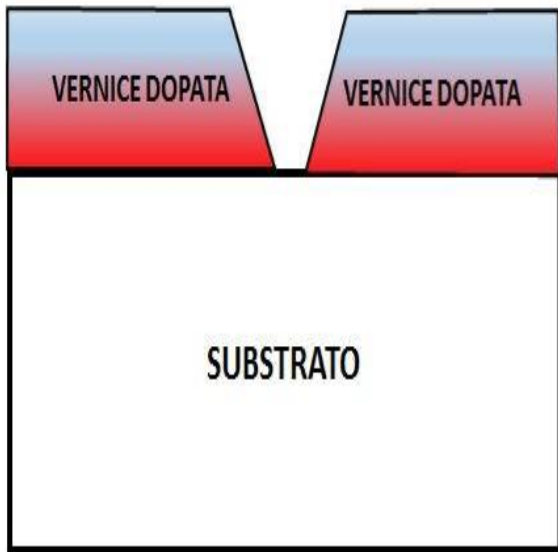
# "Competitors" of Antibacterial Nanotechnology Treatment

## 2) VARNISH

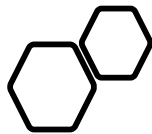
No varnish can guarantee a real antibacterial effect.

Because of:

- Absence of antibacterial action, unless elevated thickness is applied
- No guarantee of durability in time (if varnish scratches or peels, the surface under it is not bactericidal)
- **PVD Nanotechnology Treatment durability is guaranteed: since it is a nanotechnology, the bactericidal properties remain also if scratched.**



Competitors of  
Antibacterial  
Nanotechnology  
Treatment





# Antibacterial Nanotechnology Treatment is completely bactericidal



There are two processes that can be defined 'antibacterial':



**BACTERIOSTATIC**  
(means that the bacteria stops to reproduce itself, but it's not completely eliminated)



**BACTERICIDAL** (means that the bacteria has been completely destroyed and it can not reproduce itself anymore)



The Antibacterial Nanotechnology Treatment action is completely **BACTERICIDAL**.

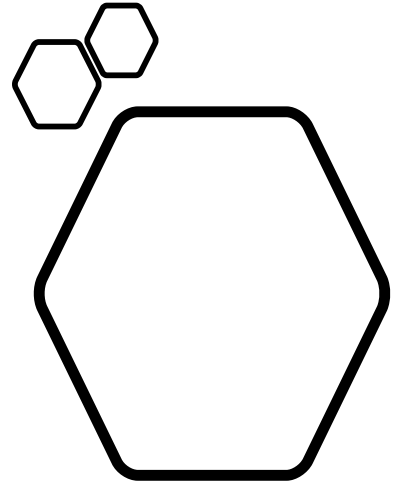


Its antibacterial action continues throughout the active life of the object and improves over time.



The finish is **fully hypoallergenic**, also in accordance with DM and 3/21/1973 the coating has no cautions for daily use and is completely safe for human contact.

# Why we present the Antibacterial Technology Treatment as 'bactericidal with unlimited durability'?

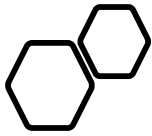


The antibacterial action continues throughout the active life of the object and improves over time, due to the physical properties of the coating.

This effect can be explained by:

- Uniformity
- Homogeneity

of the doping effects of the entire thickness of the coating. The GD OES(Glow Discharge Optical Emission Spectroscopy) analysis shows that the concentration of doping elements, that confers the antibacterial properties, is kept on the surface even after a long usage period of the objects.



# Why to choose products with Antibacterial Nanotechnology Treatment?



The world we knew since few weeks ago does not exist anymore



Consumer's needs have changed forever and safety becomes a basic need.



The entire HORECA industry will need to rethink the operation models in order to guarantee the client's feeling to be in a safe and a healthy place



The antibacteria and disinfection issues will be on the top in restaurants, buffets, room service etc.



Antibacterial Nanotechnology Treatment can be a part of the solution to a safer world

# Certificates



The test of scientific validation on Antibacterial Nanotechnology Treatment were carried out by two precious institutions in this field:

1. AIN ASOCIACION DE LA INDUSTRIA NAVARRA- PAMPLONA (Spain)
2. DIPARTIMENTO DI MEDICINA MOLECOLARE E TRASLAZIONALE DELL' UNIVERSITÀ DEGLI STUDI DI BRESCIA (Italy)

Copies of the certificates available upon request

# Available Antibacterial Nanotechnology Treatments



MEPRA is at work to certify the major number of Antibacterial Nanotechnology Treatments in way to be able to supply the whole colour range as soon as possible.

For the moment it is possible to produce three treatments:

Antibacterial Stainless Steel

Antibacterial Oro (Gold)

Antibacterial Oro Nero (Black gold)

# How much the Antibacterial Nanotechnology Treatment costs?

This everlasting antibacterial coating can be applied on any MEPRA product



The prices can easily be calculated:

Flatware and Holloware with Antibacterial Nanotechnology Treatment in Stainless Steel cost like the actual MEPRA products in Oro (Gold)

Antibacterial Flatware and Holloware in PVD Colors cost +20% more than the same PVD Color

# Buffet & Room Service

Buffet Serving Utensils and Room service equipment are two key areas that will need careful consideration.

Buffets will require a heightened level of hygiene in all areas such as sneeze guards, sanitiser stations and even pre-portioned serves.

Serving utensils are the obvious focus due to multiple hands touching the same item.

Imagine serving utensils where the surface not only inhibits the growth of bacteria, but destroys them. Room Service will be another focus point. Mepra's beautiful room service solution consists of a cloche, a thermal / insulation base and a disk that is used for heating and cool. This system can also be finished in Anti-bacterial Treatment



Help us making the  
world a safer place



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