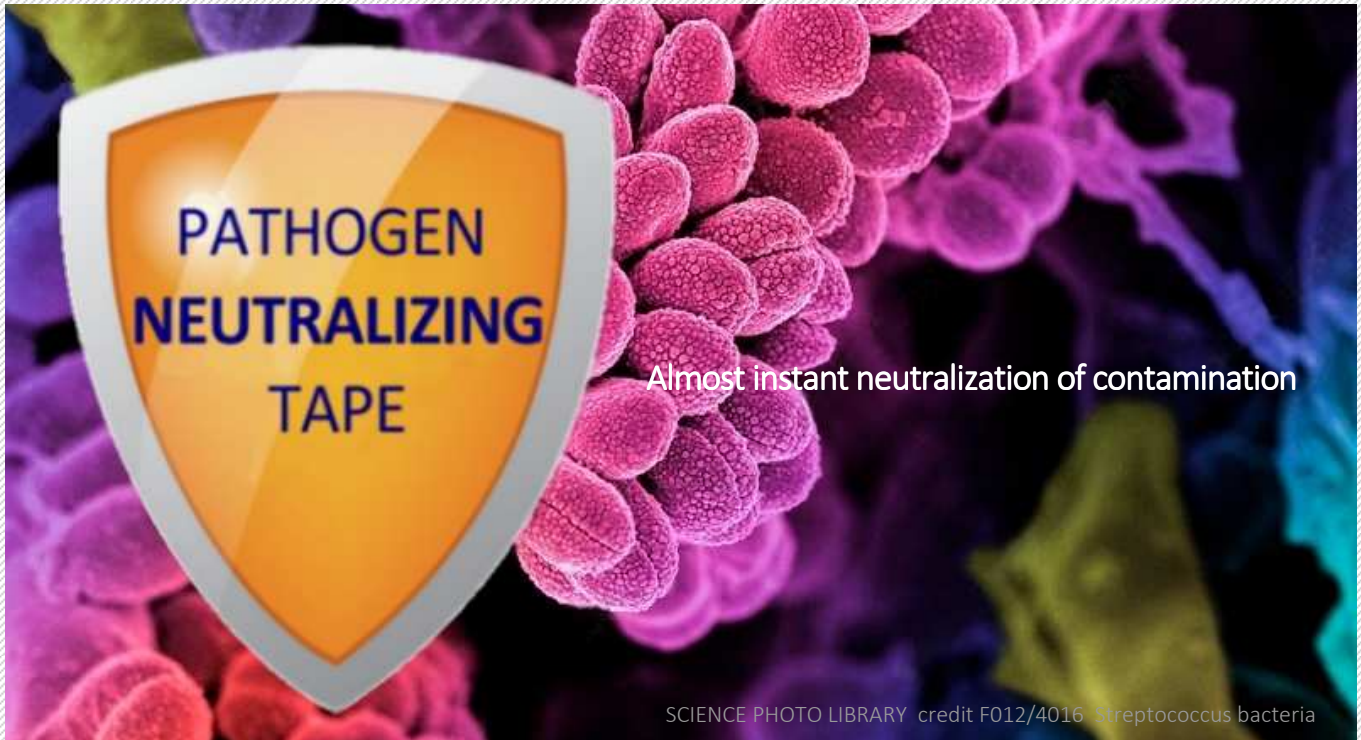


Auto-sanitizing 'PNT' pathogen neutralizing tape



'PNT' Pathogen Neutralizing Tape is a family of self-adhesive materials.

Upon application to surfaces, you obtain an almost instant pathogen-neutralizing surface.

The created surface is antibacterial, virucidal, and antifungal.

'PNT' active surface perpetually, continuously, stays biologically clean.

Thus reducing contact contamination transmissions.



ALTEAM FZE

This introductory brochure is prepared to introduce '**PNT**' to professionals, public health ministries, epidemiologists, government agencies, health organizations, hospitals, hotels, public transport, public gathering management areas, medical and hygienic consumer material, and product manufacturers who might be interested in licensing.

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Introduction

'PNT' is a novel, easy-to-use product; you just need to peel off the protective film and apply it to the desired surface, and you obtain a durable, instantly performing surface that is perpetually active, self-sanitizing, antibacterial, and virucidal, with mechanistic aspects of contact-mediated killing, reducing contact contamination transmissions of touched surfaces.

'PNT's active surface is a monolithic alloy made up of transit and Nobel metals, enhanced for accelerating the neutralization period of pathogens.

The components are made to work in synergy to obtain multi hybrid performance. The active material has a 1000-times larger treating surface than typically used biocides.

Can be engineered to meet emerging challenges. If needed, it can be laced with other materials.

Has almost instant eradication properties against a wide range of pathogens, including multi drug-resistant bacteria, microbes, and pathogens. HAI ubiquitous in hospitals, nursing homes, food processing plants, and animal breeding facilities. It is effective against dry and wet spores, even COVID-19 and monkeypox.

For certain needs, with moisture, body fluids can be made to have an inherent mild electric field potential.

The 'PNT's surface is safe for humans and hot-blooded animals and practically non-cytotoxic. 'PNT' offers a solution as it's practically impossible to sanitize surfaces all the time (especially all parts of frequently touched surfaces), and cleaning a surface doesn't guarantee that it won't get contaminated again. 'PNT' offers that solution as its created surface repels pathogens, making it non-stick and/or 'sanitize by itself' by neutralizing the contaminated pathogens quickly, almost instantly.

'PNT' performs in hot, cold, and harsh climatic conditions, as well as dry and wet, at different pressures, and is expected to perform in outer space conditions.

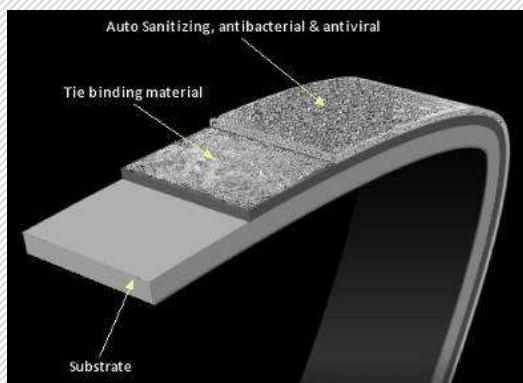
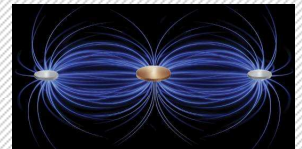
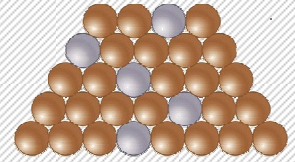
It has been demonstrated that after 30 cycles of bacterial inoculation, there was no reduction in the killing efficacy of 'PNT's surfaces.

'PNT's created surfaces are odorless, durable, malleable, robust, and stable in storage. Can routinely be wiped to remove soil. They are malleable and hard.

'PNT' is suggested to be used on various frequently touched surfaces, typically as found in public transport such as buses, trams, trains, schools, wall bumpers, push doors, hotels, hospitals, airports, toilet cubicles, elderly care centers, shopping malls, military barracks, worker's camps, offices, sports stadiums, lockers, military vehicles, etc. when applied, it reduces touch-transmitted contamination.

There are several 'active' grades of 'PNT', engineered per application, plus various grades made to adhere to a variety of surfaces; details are indicated in the physical properties section of this brochure.

'PNT' is odor-free, no gases are released, and surface obtained is spark-proof.



'PNT' Details



'PNT' being applied on a cart handle

'PNT' Super-fast neutralization performance

'PNT' has exceptional fast, short-period pathogen neutralizing performance.

'PNT's active material is a monolithic alloy; its components have hybrid performance. Using the latest technologies, it was made to have highly effective neutralization properties and an accelerating rate of bactericidal efficacy.

The bacterial cell's membrane, when in contact with 'PNT's active surface, is damaged immediately and exhibits extensive loss of structural integrity and leakage of its vital intracellular material, resulting in quick neutralization.

'PNT's active surface has an almost 1000 times larger performing surface than common other traditional systems such as nanosized biocides.

The active component of 'PNT' is unique because it has micro-miniaturized built-in enhancement and is not in particle form, making it way safer and more effective than nano-sized NP biocides-based antibacterial products.

'PNT' is effective against dry and wet spores and enveloped and non-enveloped viruses.

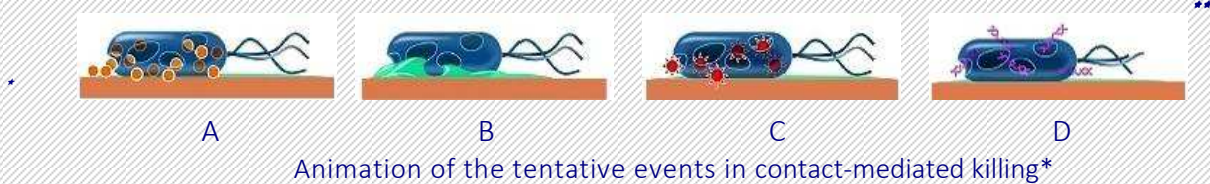
Dry 'PNT' types of surfaces have greater antimicrobial power than the same surfaces when wet.

Examples of 'PNT's enhancing accelerated **efficacy**:

- A 4.41 \log_{10} reduction (>99.99%) of the deadly Staphylococcus aureus bacteria is neutralized within 2 minutes upon contact with 'PNT'-created surface.
- Pseudomonas aeruginosa 2.2×10^7 reduction (>99.99%), within 40 minutes upon contact with the 'PNT'-created surface.

Performance description

Performance description*
How it works!



A - 'PNT' surface gets dissolved and causes cell damage.

B - The cell membrane ruptures because of 'PNT's active composition and other stress phenomena, leading to a loss of membrane potential and cytoplasmic content.

C - The 'PNT's surface ions induce the generation of reactive oxygen species, which cause further cell damage.

D - Genomic and plasmid DNA become degraded.

'PNT's surface dents the crown-shaped virus and then slowly releases ions that interact with oxygen and generate free radicals, or uncharged molecules that are typically highly reactive. Those free radicals create a figurative grenade that goes off and destroys the virus' RNA.

When treated surfaces are inactivated, residual protection may be sustained for several months, whereas cleaning does not provide the same possibility. 'PNT' type surfaces are better and more proven than Silver*, especially considering that 'PNT' surfaces work dry, whereas Silver or Silver ion surfaces need to be made wet to be effective. 'PNT' surfaces are effective dry as well as wet.

*"...Silver surfaces (also silver ion-containing materials) when their performance is tested per Japanese Industrial Standard (JIS Z 2801), in high humidity (>90% RH) and high temperature (35°C) produced measurable efficacy; however, silver (also silver ion containing materials) showed no significant response at lower temperature and humidity levels typical of indoor environments..." As a solution, 'PNT' is multi-component alloy of copper and Nobel metal.

A recent U.S. government-funded study conducted by researchers at the National Institutes of Health and the Centers for Disease Control and Prevention (CDC) reported that the SARS-CoV-2 virus, which causes the disease COVID-19, remained viable for up to 2-3 days on plastic and stainless steel surfaces in comparison to 4 hours on our type of 'PNT' surface, in actual much shorter than 4 hours (As some are enhanced alloy of copper).

Corona virus 229E was rapidly inactivated with our type of 'PNT'-treated surfaces (within a few minutes for simulated fingertip contamination). **It destroyed the viral genomes and irreversibly affected virus morphology**, including the disintegration of the envelope and the dispersal of surface spikes. The ion + and ion II of the surface moieties were responsible for the inactivation, which was enhanced by reactive oxygen species generation on 'PNT' type surfaces, resulting in even faster inactivation than was seen with non enveloped viruses. Consequently, usage in communal areas and at any mass gatherings can help reduce the transmission of respiratory viruses from contaminated surfaces and protect public health.

In one study using a 'PNT' type of surface, it was demonstrated that there was a 99% reduction of live bacteria in a laboratory test. Similarly, in a clinical trial, an 83% reduction of live bacteria was observed compared to standard materials used for hospital surfaces.

**MINIREVIEWS APPLIED AND ENVIRONMENTAL MICROBIOLOGY, Mar.2011,p.1541–1547 about Copper

'PNT' active surface is a multi-component alloy, made up of transit and Nobel metals, certain grade's component can be copper, the above relates to its performance.

*Contact killing time of microbes by the permanent Copper active surface**:

<u>Species</u>	<u>Application method</u>	<u>Killing time, RT^a</u>
<i>Salmonella enterica</i>	Wet, 4.5 x 10 ⁶ CFU ^b	4 h
<i>Campylobacter jejuni</i>	Wet, 4.5 x 10 ⁶ CFU ^b	8 h
<i>Escherichia coli</i> O157	Wet, (3–4) x 10 ⁷ CFU ^c	65 min
<i>Escherichia coli</i> O157	Wet, 2.7 x 10 ⁷ CFU ^c	75 min
MRSAd (NCTC10442)	Wet, (1–1.9) x 10 ⁷ CFU ^c	45 min
EMRSA-1e (NCTC11939)	Wet, (1–1.9) x 10 ⁷ CFU ^c	60 min
EMRSA-16e (NCTC13143)	Wet, (1–1.9) x 10 ⁵ CFU ^c	90 min
<i>Listeria monocytogenes</i> Scott A	Wet, 10 ⁷ CFU ^c	60 min
<i>Mycobacterium tuberculosis</i>	Wet, 2.5 x 10 ⁷ CFU ^f	5 to 15 days ^g
<i>Candida albicans</i>	Wet, >10 ⁵ CFU ^f	60 min
<i>Klebsiella pneumoniae</i>	Wet, >10 ⁷ CFU ^f	60 min
<i>Pseudomonas aeruginosa</i>	Wet, >10 ⁷ CFU ^f	180 min
<i>Acinetobacter baumannii</i>	Wet, >10 ⁷ CFU ^f	180 min
MRSA	Wet, >10 ⁷ CFU ^f	180 min
Influenza A virus (H1N1)	Wet, 5 x 10 ⁵ viruses ^h	6 h, 4-log decrease
<i>C. difficile</i> (ATCC 9689) vegetative cells and spores	Wet, 2.2 x 10 ⁵ CFU ^c	24 – 48 h
<i>C. difficile</i> NCTC11204/R20291 vegetative cells	Wet, (1-5) x 10 ⁶ CFU ⁱ	30 min
<i>C. difficile</i> dormant spores	Wet, 8 x 10 ⁶ CFU ⁱ	Unaffected in 3 h
<i>C. difficile</i> germinating spores	Wet, 8 x 10 ⁶ CFU ⁱ	3 h, 3-log decrease
<i>Pseudomonas aeruginosa</i> PAO1	Wet, 2.2 x 10 ⁷ CFU	120 min
MRSA NCTC 10442	Wet, 2 x 10 ⁷ CFU	75 min, 7 log decrease
<i>Escherichia coli</i> W3110	Dry, 10 ⁹ CFU ⁱ	1 min
<i>Acinetobacter johnsonii</i> DSM6963	Dry, 10 ⁹ CFU ^k	A few minutes
<i>Pantoea stewartii</i> DSM30176	Dry, 10 ⁹ CFU ⁱ	1 min
<i>Pseudomonas oleovorans</i> DSM 1045	Dry, 10 ⁹ CFU ^k	1 min
<i>Staphylococcus warnerii</i> DSM20316	Dry, 10 ⁹ CFU ^k	A few minutes
<i>Brachybacterium conglomeratum</i> DSM 10241	Dry, 10 ⁹ CFU ^k	A few minutes
<i>Aspergillus flavus</i>	Wet, (2–300) x 10 ⁵ spores ^c	120 h
<i>Aspergillus fumigatus</i>	Wet, (2–300) x 10 ⁵ spores ^c	>120 h
<i>Aspergillus niger</i>	Wet, (2–300) x 10 ⁵ spores ^c	>576 h
<i>Fusarium culmorum</i>	Wet, (2–300) x 10 ⁵ spores ^c	24 h
<i>Fusarium oxysporum</i>	Wet, (2–300) x 10 ⁵ spores ^c	24 h
<i>Fusarium solani</i>	Wet, (2–300) x 10 ⁵ spores ^c	24 h
<i>Penicillium crysogenum</i>	Wet, (2–300) x 10 ⁵ spores ^c	24 h
<i>Candida albicans</i>	Wet, (2–300) x 10 ⁵ spores ^c	24 h
<i>Enterococcus hirae</i> ATCC 9790	Wet, 10 ⁷ CFU ^c	90 min
Different <i>Enterococcus</i> spp.	Wet, 10 ⁶ CFU ^f	60 min
<i>Candida albicans</i>	Dry, 10 ⁶ CFU ^k	5 min
<i>Saccharomyces cerevisiae</i>	Dry, 10 ⁶ CFU ^k	30 s

^a RT, room temperature.

^b Inoculation with 1.5 ml of culture (4.5 x 10⁶ CFU), kept under humid conditions.

^c Inoculation with a 20- μ l drop of culture.

^d Methicillin-resistant *Staphylococcus aureus*.

^e Epidemic methicillin-resistant *Staphylococcus aureus*.

^f Twenty micro liters of culture spread on coupons.

^g Time before strain became culture positive in Bactec 12B growth medium after exposure.

^h Inoculation with 20 μ l of virion suspension.

ⁱ One hundred micro liters of dilute culture.

^j Twenty-five micro liters of culture spread on coupons with a glass spreader.

^k Thin film applied with a cotton swab.

*MINIREVIEWS APPLIED AND ENVIRONMENTAL MICROBIOLOGY, Mar.2011,p.1541–1547 about Copper

***'PNT' active surface is a multi-component alloy, made up of transit and Nobel metals, certain grade's component can be copper, the above relates to **its non accelerated enhanced** performance.

How does microbial neutralization occur?

Contact killing is the mechanism by which microbial death occurs on 'PNT'-type surfaces.

'PNT's toxicity occurs due to its tendency to alternate its oxidation active component's state between (+1) and (+2). Under aerobic conditions, this redox cycle leads to the generation of highly reactive hydroxyl radicals that damage biomolecules such as DNA, proteins, and lipids. This process is much further enhanced and accelerated thanks to 'PNT's unique alloy composition.

Factors that increase reactive oxygen species (ROS) increase the bacterial death rate. Thus, the production of hydroxyl radicals by the Fenton-like reaction contributes to the inactivation of microorganisms.

“Death by contact” is carried out by:

- Successive damage to the membrane
- Influence of the alloy within cells
- Oxidative damage
- Cell death
- DNA degradation
- Dry 'PNT' types of surfaces have greater antimicrobial power than the same surfaces when wet.
- Microbial cells exposed to dry 'PNT' types of surfaces accumulate large amounts of ions faster than on wet surfaces. They suffer extensive damage to the membranes and lose cellular integrity in a few minutes.

Under anaerobic conditions, the absence of oxygen only increases the time required to inactivate 109 E. coli cells (from 1 to 2 minutes) in dry plates, but this does not protect them from death. Contact with cells can directly oxidize the 'PNT' type of surface, leading to the release of +1 ions. These are not very soluble and are not stable in aerobiosis, but they are more toxic than +2 ions. Therefore, anaerobic conditions do not significantly increase survival on the 'PNT' type of surface.

General information

'PNT's surface continuously reduces bacterial contamination, achieving a 99.9% reduction within two hours of exposure.

'PNT's surface kills more than 99.9% of Gram-negative and Gram-positive bacteria within two hours of exposure.

'PNT's surface delivers continuous and ongoing antibacterial action, remaining effective in killing greater than 99.9% of bacteria within two hours.

'PNT's surface kills more than 99.9% of bacteria within two hours and continues to kill 99% of bacteria even after repeated contamination.

'PNT's surface helps inhibit the buildup and growth of bacteria within two hours of exposure between routine cleaning and sanitizing steps.

'PNT's surface testing demonstrates effective antibacterial activity against Staphylococcus aureus, Enterobacter aerogenes, Methicillin-Resistant Staphylococcus aureus (MRSA), Escherichia coli O157:H7, and Pseudomonas aeruginosa.

Laboratory testing shows that, when wiped regularly, 'PNT's surfaces kill greater than 99.9% of the following bacteria within 2 hours of exposure:

- MRSA
- VRE
- Staphylococcus aureus
- Enterobacter aerogenes
- Pseudomonas aeruginosa
- E.coli O157:H7.

'PNT's surfaces are a supplement to and not a substitute for standard infection control practices and have been shown to reduce microbial contamination, but do not necessarily prevent cross-contamination or infections; users must continue to follow all current infection control practices.

Incorporating 'PNT's surfaces into hospitals can help reduce the bacteria that cause healthcare-associated infections.

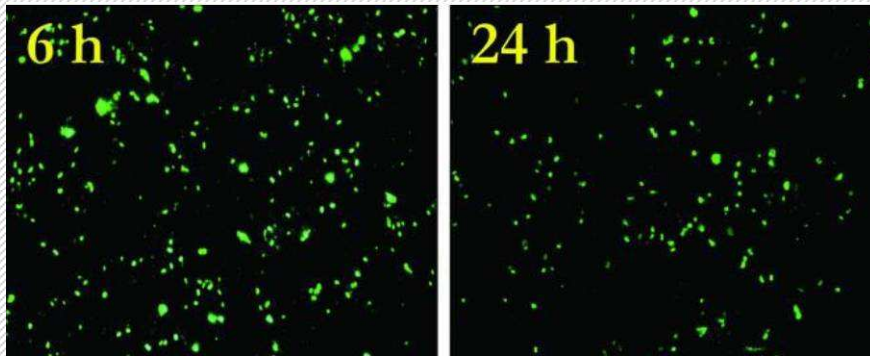
'PNT's surfaces provide continuous protection against disease-causing bacteria.

'PNT's surfaces are your new weapon in the fight against healthcare-associated infections, killing more than 99.9% of bacteria within 2 hours.

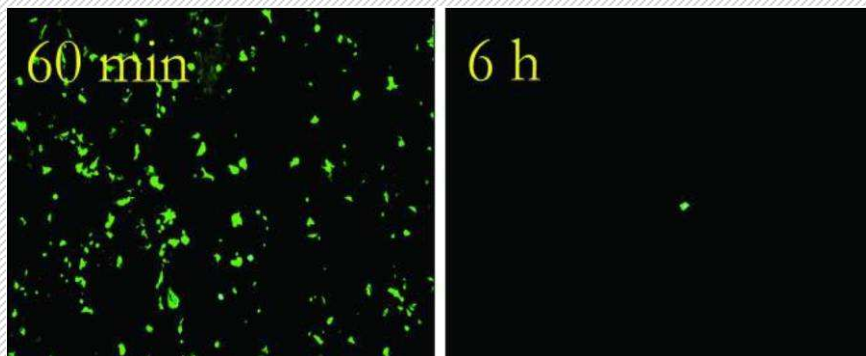
'PNT's surfaces kill more than 99.9% of MRSA within 2 hours.

'PNT's surfaces are “inherently” or “intrinsically” antimicrobial.

Effect on influenza virus



Effect on influenza A Virus infectivity after 6-h or 24-h exposure to stainless steel



Effect on influenza A Virus infectivity after 60-min or 6-5 min exposure to 'PNT'

***APPLIED AND ENVIRONMENTAL MICROBIOLOGY, Apr.2007,p.2748–2750



'PNT' active surface is a multi-component alloy, made up of transit and Nobel metals, certain grade's component can be copper, the above relates to its performance.

Physical properties

Details

The 'PNT's active surface is 1-1.4 mil [0.265-0.35 mm] thick.

Available in rolls of 50 mm wide up to 600 mm, having lengths of 1–5 meters

'PNT' is available in sheet form, made to the dimensions desired.

The active surface is malleable, has very good chemical resistance to organic solvents, and the surface finish can be made to have different metallic shades.

'PNT's active surface is not affected by water; however, it is slowly affected by atmospheric oxygen, which makes it darker, this protects the subsurface.

A change of shade does not affect 'PNT's anti-bacterial, and anti-viral properties; if needed, the original luster can be brought back with our "XE36" surface polishes.

'PNT' tapes come in several grades, depending on the surfaces to be applied to, as well as per desired thickness and surface shades (4 standard shades):

XE262--65 Series the active surface is 1.0 mil thick, and is made to be applied to smooth surfaces.

XE352--65 Series the active surface is 1.4 mil thick, and is made to be applied to smooth surfaces.

XE262--70 Series the active surface is 1.0 mil thick, and is made to be applied to porous surfaces.

XE352--70 Series the active surface is 1.4 mil thick, and is made to be applied to porous surfaces.

Adhesive performance details of 'PNT' XE---65

Details

'PNT' XE---65 is made to be applied to smooth surfaces, such as ABS, EPDM, touch screen mounting, with a robust PET-tackyfied acrylic adhesive that achieves a reliable bond even on difficult-to-adhere surfaces and enables immediate usability right after applications.

'PNT' XE---65 has good performance in demanding heavy stress conditions and high temperatures.

Backing material: PET Tackified acrylic film
 Total thickness: 205 µm
 Elongation at break: 50 %
 Tensile strength: 20 N/cm

Bonding properties

Substrate	Initial strength	After 14 days
Steel	11.5 N/cm	11.8 N/cm
ABS	10.3 N/cm	12.0 N/cm
Aluminum	9.2 N/cm	10.6 N/cm
PC	12.6 N/cm	14.0 N/cm
PE	5.8 N/cm	6.9 N/cm
PET	9.2 N/cm	9.5 N/cm
PP	6.8 N/cm	7.9 N/cm
PS	10.6 N/cm	12.0 N/cm
PVC	8.7 N/cm	13.0 N/cm

Properties

Exposure	Evaluation
Temperature resistance 200°C	Short term
Temperature resistance 100°C	Long term
Tack	Good
Ageing resistance UV	Very good
Humidity resistance	Very good
Resistance to chemicals	Good
Softener resistance	Good
Static shear resistance 23°C	Good
Static shear resistance 40°C	Good

Adhesive performance details of 'PNT' XE---70

Details

'PNT' XE---70 has high coating weight for good bonding performance on rough or dusty surfaces.
 Made from PVC-film backing and a tackified acrylic adhesive, it achieves a reliable bond and enables immediate usability right after applications.
 Excellent combination of high tack and immediate adhesion.
 Full suitability for long-term applications.

- Backing material: PVC film
- Total thickness: 225 µm
- Elongation at break: 20 %
- Tensile strength: 38 N/cm
- Protective liner type: glassine
- Protective liner: 82 g/m²
- Protective liner thickness: 71µm

Bonding properties

Substrate	Initial strength	After 14 days
Steel	13.0 N/cm	13.6 N/cm
ABS	13.4 N/cm	14.4 N/cm
Aluminum	11.5 N/cm	12.6 N/cm
PC	16.2 N/cm	16.9 N/cm
PE	8.5 N/cm	9.1 N/cm
PET	11.5 N/cm	11.9 N/cm
PP	9.7 N/cm	10.8 N/cm
PS	14.7 N/cm	15.2 N/cm
PVC	12.4 N/cm	16.6 N/cm

Properties

Exposure	Evaluation
Temperature resistance 70°C	Short term
Temperature resistance 60°C	Long term
Tack	Good
Ageing resistance UV	Very good
Humidity resistance	Very good
Resistance to chemicals	Good
Softener resistance	Good
Static shear resistance 23°C	Good
Static shear resistance 40°C	Low

Application guide and shelf life

Application guide

It is important to follow some specific rules when applying '**PNT**' tape, in order to have an appropriate working area and to achieve maximum performance.

The surface should be free of dust, grease, oil, moisture, and other contaminants, as they will decrease the level of bonding significantly.

For correct cleaning of the surface, use appropriate solvents such as ethanol, or isopropanol or our cleaning materials.

Please always test the surface before using solvents.

We don't recommend using them on PCs or PMMA. The recommended ambient and application temperatures are between 15°C and 30°C, avoiding sharp temperature changes over the day.

The tape and bonded materials should be stored at this temperature as well. Bonding power and humidity resistance can be significantly enhanced by using our adhesion promoter.

The tape should be applied with sufficient pressure--- a uniform pressure of 20 N/cm² over the complete area. The bonding strength will increase over time.

At a room temperature of 21°C and 50% relative humidity, 50% of the total bonding power will be achieved after 20 minutes and complete strength after 72 hours.

General application guidelines are available upon request.

Shelf life

The shelf life of '**PNT**' tape is 12 months from the date of delivery if the storage and transportation guidelines are followed.

'**PNT**' tape should be stored at temperatures between 15°C and 35°C, avoiding high humidity. Ensuring that no dust, dirt, or contamination enters during transportation and storage will prevent any damage or deformation of the packaging. All slitted edges should be covered with suitable separators made of siliconized film.

The exposed surface of '**PNT**' tape will tarnish over time, but this will not diminish its antibacterial and antiviral properties. Using our surface cleansing material, its original luster can be restored.

Available shades:



XE---74--



XE---26--



XE---23--



XE---11--



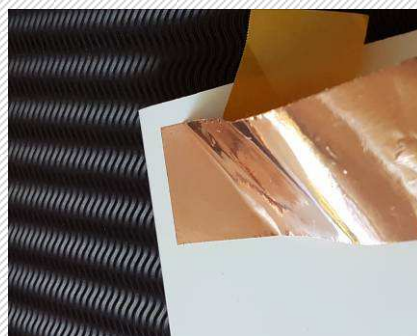
Application guideline



'PNT' tape



'PNT' tape
1 - Protective film peeled



'PNT' tape being applied
2 - Positioned to place and pressed upon

Thus you will obtain a perpetually fast auto self sanitizing surface

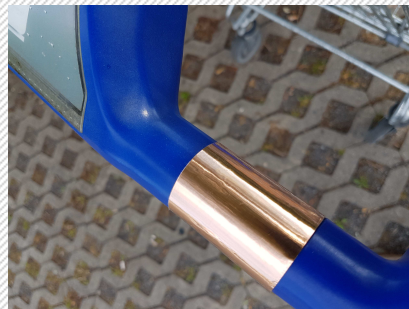
An application example



'PNT' as placed on top of handles



'PNT' protective film peeled off
placed in position and pressed upon



'PNT' as applied

The applied area now is perpetually auto self sanitizing
Continuously anti bacterial, anti viral

Neutralizing effectiveness comparisons: 1/2

'PNT' exceeds the performance of nano-NP-sized particle-form biocides.

- 'PNT' **creates a monolithic solid surface** as such and has safety advantages over others that are made from NP particle-type biocides. Nano-sized silver ion biocides pose a safety hazard due to their possible systematic uptake tendency, through wounds/skin that lead to accumulation in certain organs.

Performance comparison of 'PNT' with commonly used NP sized silver ion surfaces:

- 'PNT' **monolithic solid surface** provides more than 1000 times more active surface in comparison to NP-type biocides such as silver ions.

- The 'PNT' **surfaces** are free from hindering binders.

- 'PNT' Utilizing the latest innovative technology, which has exceptional, accelerated, almost instant neutralizing bactericidal efficacy, bacterial cells' membranes are immediately damaged when they come into contact.

Examples:

- A 4.41 \log_{10} reduction (>99.99%) of the deadly Staphylococcus aureus bacteria was neutralized within 2 minutes upon contact.

- Pseudomonas aeruginosa 2.2×10^7 reduction (>99.99%) within 40 minutes upon contact.

- Furthermore, as most contamination ends up being dry, 'PNT's uptake is faster in dry form than on moist surfaces, in comparison NP-silver ion biocides do not perform in dry or on dry spores.

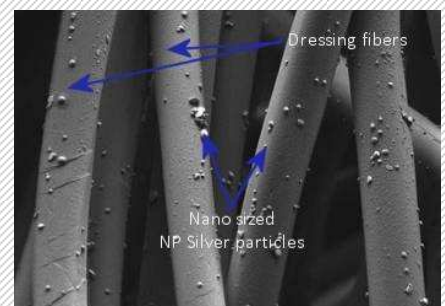
- 'PNT' performs in a wide range of temperature conditions

Silver ion response is also limited by temperature; Silver ions do not perform on surfaces whose temperature is below 35°C (95 °F), most common indoor environment, surfaces are about 21°C (69 °F).

*"... When tested according to Japanese Industrial Standard (JIS Z 2801), silver surfaces (also Silver ion containing materials) produced measurable efficacy in high humidity (> 90% RH) and high temperature (35°C); however, silver (also Silver ion containing materials) showed no significant response at lower temperature and humidity levels typical of an indoor environment."

- Nanoparticle-sized silver ion biocides, have limited efficacy against certain pathogens. NP Silver Ion biocides to be utilized are suspended in vehicles or binders, consequently reducing their active surface area.

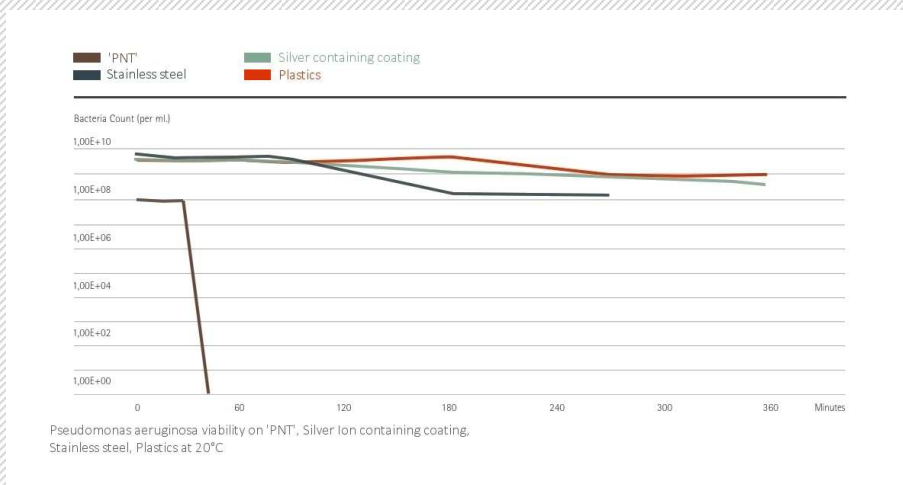
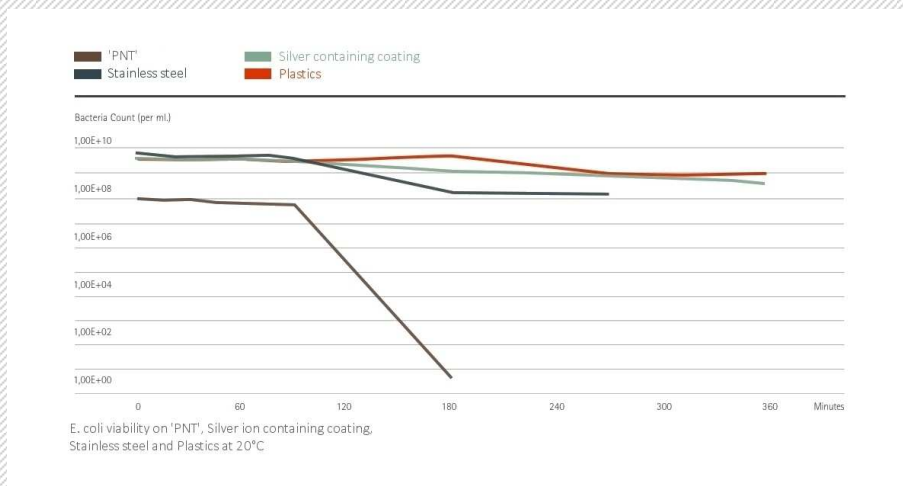
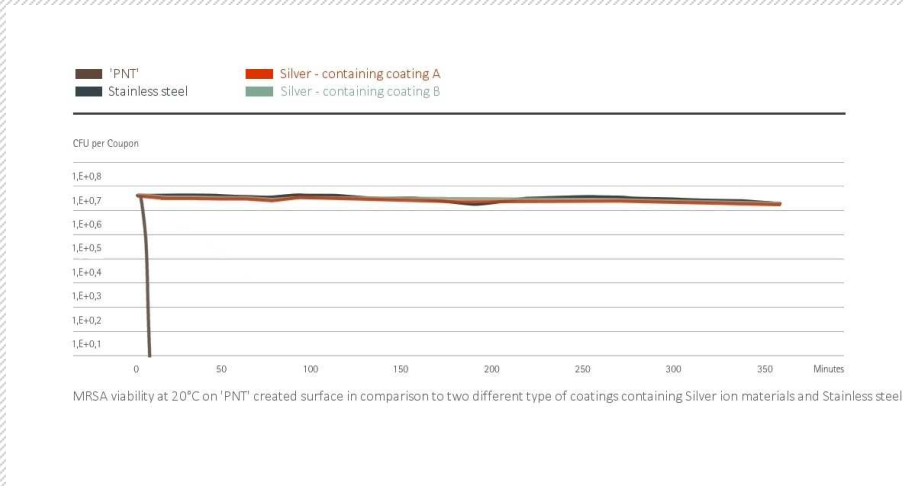
In addition, since the quantity that can be 'loaded' within a binder is limited, it reduces the active exposed quantity per unit volume or area, as seen in the enclosed picture.



Fibers coated in silver nanoparticles
(Those tiny dots) used in dressings
ZEISS Microscopy/Flickr

Neutralizing effectiveness comparison: 2/2

J - Following are graphs of the neutralizing period efficacy of 'PNT' in comparison to typical materials and coatings containing silver ions



'PNT' active surface is a multi-component alloy, made up of transit and Nobel metals, certain grade's component can be copper, the above relates to its performance.

References

'PNT' active surface is a multi-component alloy, made up of transit and Nobel metals, certain grade's component can be copper, for further reading please refer to below References 2.

Further reading / Reference 2 