PROTECTOR®
Health & Hygiene

made with d2p technology

H&H Protected Hospitals

Designed to Protect

Maximum Protection Against
Bacteria, Fungi & Algae



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H&H Protected Hospitals

Hospital environment provides an ideal milieu for the growth of harmful microorganisms. Healthcare Associated Infections (HAIs) are a significant cause of morbidity and mortality in hospitalized patients and healthcare workers. The close proximity of patients provide an ideal opportunity for microbes to spread directly from person to person and via contaminated surfaces. The emergence of multidrug resistant microorganisms (Super Bugs) has added to the woes. Provision of good hygiene in healthcare environment is imperative.

Despite efforts to promote good hand hygiene practices, isolation protocols and cleaning of healthcare surfaces, HAIs are the most common complication of hospital care and one of the most serious patient safety concerns. Most commonly occurring HAIs in healthcare setups are urinary tract infections, surgical site infections and various pneumonias caused by *MRSA, Clostridium, Pseudomonas, Escherichia coli, Candida, Klebsiella* and *Enterobacter* etc. These infections can lead to septicaemia and endanger lives in case of infections.

Hospital surfaces, walls, floors, equipment, water and air supply systems can easily be contaminated with bacteria and microorganisms. These microbes can survive on surfaces for surprisingly longer periods of time and can act as a permanent reservoir of cross contamination.

Reducing the risk of infection is a top priority of hospitals. Healthcare providers actively seek ways to create obstacles against the spread of infectious diseases and a lot of money is spent for this purpose worldwide. Protector® Antimicrobial Products can resolve this obstacle by providing maximum protection against microbial buildup and spread through hospital surfaces.

Health & Hygiene Limited, a British company, under its brand name Protector® has developed a complete range of Antimicrobial Products for healthcare facilities including hospital durables, building fixtures, wall paints, flooring and disposables to promote safer and healthier environment.

Protector® products provide protection against:

- ✓ Bacteria
- ✓ Fungi
- ✓ Algae
- ✓ Mould
- ✓ Yeast
- ✓ Mildew

Protector® Antimicrobial Products act as first active line of defense against harmful bacteria and disease causing microorganisms. Bacteria and other microorganisms are killed upon contact with the surface of Protector® Antimicrobial Products and promote protection to both the user and the person who come into contact with these products. These products are completely safe to use and the materials are in compliance with US and EU regulations.

Protector® Antimicrobial Products are tested by Independent third party laboratories and proved 99.99% efficacy against bacteria and microorganisms in accordance with ISO 22196 and ASTM E 2180.

Key Features:

Maximize the protection against Healthcare Associated Infections

Effective, round the clock protection against microorganisms

99.99% Antimicrobial protection that lasts for the products' lifetime

Save the cost of treatment by preventing infection spread and need for the prophylactic antibiotics

Enhance hospital reputation and prestige



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d_2p Antimicrobial Technology

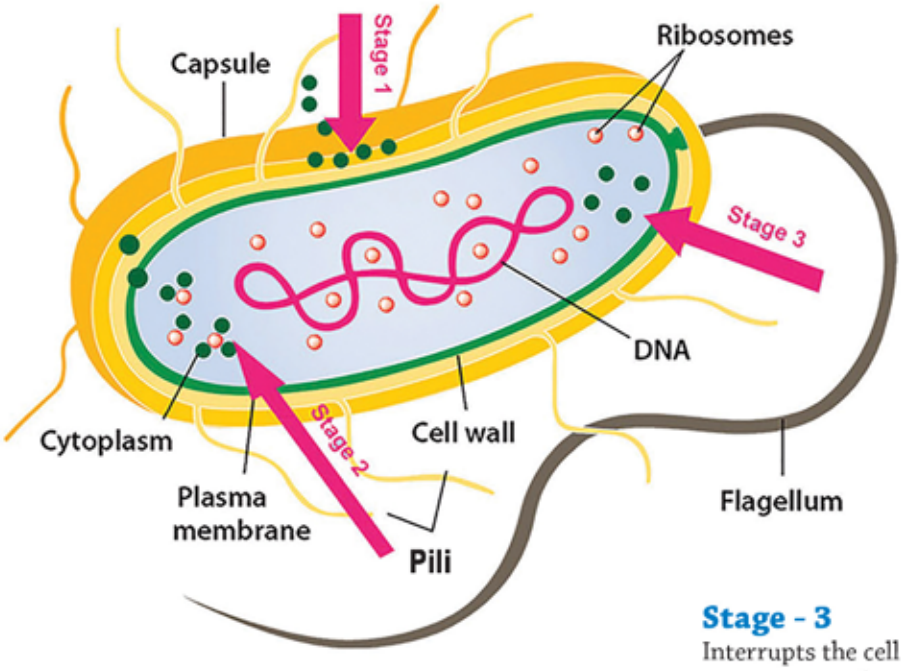
Protector® has incorporated d_2p Antimicrobial Technology in its products. d_2p is an innovative technology from Symphony Environmental Technologies and is designed to prevent the development and growth of bacteria and microorganisms.

d_2p Antimicrobial Technology provides broad spectrum Antimicrobial Protection (Antibacterial, Anti- fungal and Anti-algae)

- Antibacterial protection - Protection from bacteria (Gram + and Gram –ve) > 99.99%
- Antifungal protection - Protection from fungi, yeast, mould and mildew > 99.99%
- Anti-algae protection - Protection from algae > 99.99%

d_2p Antimicrobial Technology is added during manufacturing process and remains active in killing bacteria and microorganisms throughout product's life.

How d_2p Antimicrobial Technology Works



Stage - 1
d_2p enters the bacterial membrane and causes damage and disruption to the cellular wall before penetrating the cell

Stage - 2
d_2p is highly reactive with cell enzymes and deactivates these vital molecules

Stage - 3
Interrupts the cell DNA thus preventing replication and cell formation

Effective against over 50 microorganisms

d_2p is effective against over 50 dangerous microorganisms including:

E.coli	***MRSA***	***Pseudomonas***
Staphylococcus aureus	***Salmonella***	***Candida***
Klebsiella	***Penicillium chrysogenum***	***Listeria***
Corynebacterium	***Aspergillus niger***	***Enterobacter***



Bacteria & microorganisms land on the product surface



d_2p starts acting against bacteria & microorganisms



d_2p attacks bacterial & microbial cells, disrupting their function and reproduction



99.99% reduction of bacteria & microorganisms

d_2p conforms to the following standards for its Antimicrobial Efficacy

- Anti-bacterial testing: ISO 22196:2011 and JIS Z 2801
- Anti-fungal testing: ISO 16869:2008 and ASTM E 2180
- Anti-algal testing: ASTM D 5589-09

Regulatory Approvals of d_2p (am)

The active ingredient of d_2p (am) is:

- Registered with US Environmental Protection Agency (US EPA)
- In compliance with US FDA for food contact safety
- Notified under EU's Regulation (BPR-EU-no. 528/2012)

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Protector Antimicrobial Building Infrastructure and Fixtures





Antimicrobial Wall Paints & Coatings

Antimicrobial wall paints provide round the clock protection by inhibiting the buildup and growth of microorganisms on the walls & surfaces

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

Antimicrobial Flooring

Antimicrobial seamless flooring is 99.99% protected against microbial buildup and acts as an important preventive measure in infection control



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial HVAC Ducts
HVAC ducts with Antimicrobial coating kill bacteria & microorganisms on contact and minimize airborne spread of microorganisms

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

Antimicrobial Doors & Door Knobs
Coated with Antimicrobial spray for protection against bacteria & microorganisms



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Chairs, Stools & Other Furniture
Coated with Antimicrobial spray for protection against bacteria & microorganisms

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Water Pipes
HDPE, PVC and PPRC for Safe Water Supply

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

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Protector Antimicrobial Durable Products





Antimicrobial Patient's Bed
Coated with Antimicrobial spray for protection against bacteria & microorganisms

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Bed Mattresses
Material: Polyurethane

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Bed Side Tables
Coated with Antimicrobial spray for protection against bacteria & microorganisms

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Waste Bins
Material: High density polyethylene (HDPE), polypropylene (PP)

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Curtains
Material: Polypropylene
Non-woven

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Patient's Trays, Food Trays and Cups
Material: High impact polystyrene (HIPS), Polypropylene (PP)

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

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Protector Antimicrobial Disposable Products





Antimicrobial Examination Gloves (Standard)

Material: Latex powder free
Non-sterile
Glove weight: 5 grams
Sizes: XS, S, M, L & XL
Packaging: 100 gloves/box
Product Code: AEG-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

Antimicrobial Examination Gloves (Premium)

Material: Latex powder free
Non-sterile
Glove weight: 5.5 grams
Sizes: XS, S, M, L & XL
Packaging: 100 gloves/box,
Product Code: AEG-002



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Examination Gloves (Standard)

Material: Latex powder free
Non-sterile
Glove weight: 5 grams
Sizes: XS, S, M, L & XL
Packaging: 10 pairs/box
Product Code: AEGS-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

Antimicrobial Examination Gloves (Premium)

Material: Latex powder free
Non-sterile
Glove weight: 5.5 grams
Sizes: XS, S, M, L & XL
Packaging: 10 pairs/box
Product Code: AEGS-002



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Doctor Caps

Material: SBPP, 25 GSM
Style: With ties
Color: Blue
Packaging: 100 pcs/polybag
Product Code: ADC-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

Antimicrobial Mob Caps

Material: SBPP, 10 GSM
Style: Double elastic
Color: Blue
Packaging: 100 pcs/polybag
Product Code: AMC-001



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Face Masks (Ear-loop)

Material: SBPP 20 GSM+ Filter Paper + 25 GSM
Style: Ear Loop
Color: White
Packaging: 50 pcs/box
Product Code: AFME-001



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance
Conforms to ASTM F 2100 for VFE, BFE, PFE & ΔP"

Antimicrobial Face Masks (Tie-on)

Material: SBPP 20 GSM + Filter paper+ 25 GSM
Style: Tie-on
Color: white
Packaging: 50 pcs/box
Product Code: AFMT-001



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance
Conforms to ASTM F 2100 for VFE, BFE, PFE & ΔP"



Antimicrobial Face Masks (Ear-loop)

Material: SBPP 20 GSM+ Filter Paper + 25 GSM
Style: Ear Loop
Color: White
Packaging: 10 pcs/OPP bag
Product Code: AFMES-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance
Conforms to ASTM F 2100 for VFE, BFE, PFE & ΔP"

Antimicrobial Face Masks (Tie-on)

Material: SBPP 20 GSM + Filter paper+ 25 GSM
Style: Tie-on
Color: white
Packaging: 10 pcs/OPP bag
Product Code: AFMTS-001



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance
Conforms to ASTM F 2100 for VFE, BFE, PFE & ΔP"



Antimicrobial Surgeon Gown (Standard, EO Sterilized)

Material: SMS, 40 GSM
Neckline: Velcro at neck, ties at waist
Wrists: knitted cuffs
Color: Blue
Sizes: S, M, L, XL
Packaging: 1 pc/pouch
Product Code: ASSG-001



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

Antimicrobial Surgeon Gown (Reinforced, EO Sterilized)

Material: SMS, 45 GSM
Neckline: Velcro at neck, 4 ties at waist
Wrists: knitted cuffs
Front and sleeves reinforced
Color: Blue
Packaging; 1 pc/pouch
Sizes: S, M, L, XL
Product Code: ARSG-001





"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Lab Coat

Material: SBPP, 30 GSM
2 pockets, with four buttons and elastic cuffs
Color: White
Sizes: S, M, L, XL
Packaging: 10 pcs/polybag
Product Code: ALC-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

Antimicrobial Isolation gown

Material: SBPP, 20 GSM
Elastic cuff, ties on waist and neck
Color: Blue
Sizes: S, M, L, XL
Packaging: 10 pcs/polybag
Product Code: AIG-001



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

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Antimicrobial Non-Woven Shoe Covers

Non-woven, SBPP, 30 GSM, Anti-Skid
Color: Blue
Packaging: 100 pcs/polybag
Product Code: ASCP-001



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial CPE Shoe Covers

CPE, Anti-skid
Color: Blue
Packaging: 100 pcs/polybag
Product Code: ASCC-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Bed Cover & Pillow Cover

Material: SBPP 30 GSM
Bed Cover with adjustable corners
Color: White
Packaging: 1 set/polybag,
Including 1 bed cover and 2 pillow covers
Product Code: ABC-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Hospital Waste Bags (General waste bags)

Size: 30" x 36"
Color: White
Product Code: AHWB-001

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"

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Antimicrobial Hospital Waste Bags (Bin liners)

Size: 18" x 24"
Color: Grey
Product Code: AHWB-002



"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



Antimicrobial Hospital Waste Bags (High risk waste bags)

Size: 30" x 36"
Color: Yellow
Product Code: AHWB - 003

"Conforms to ISO 22196 and ASTM E 2180 for Antimicrobial performance"



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