



# Protec<sup>+</sup>™

ANTIMICROBIAL HIGH PRESSURE LAMINATES *by FORMICA GROUP*

# THE POWER OF Protec+™

An increased awareness of the problem associated with microbes has led to a collaboration of **Formica®** and **BioCote®** to present **Protec+™**, a high performance premium laminate product. **Protec+™** introduces an additional layer of hygienic protection to your environment through the utilization of the antimicrobial properties of silver.

## RECOGNIZED AS THE MOST EFFICIENT AND SAFE ANTIMICROBIAL TREATMENT, SILVER TECHNOLOGY

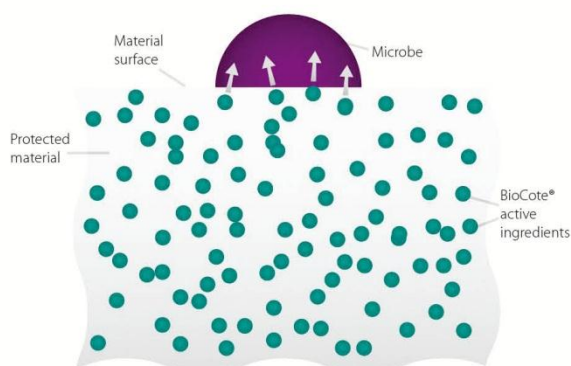
- ✓ Provides long lasting performance
- ✓ Effective against a wide range of microbes to include bacteria, mould and fungi
- ✓ Enhances the performance of treated materials
- ✓ Multiple modes of actions

### And here's the science,

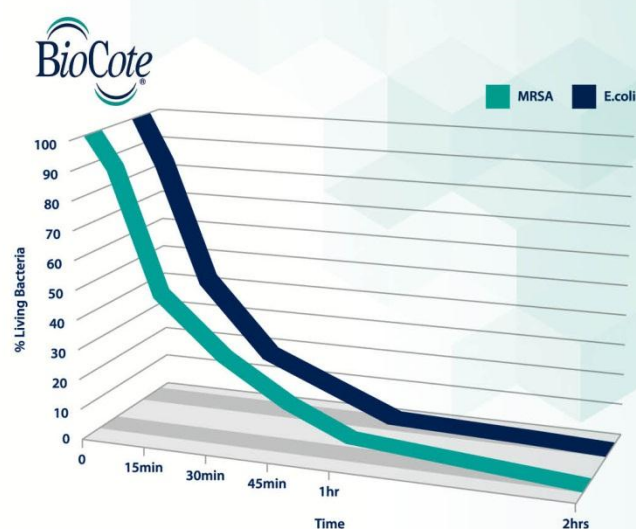
Silver ions are generated from elemental silver, and they are known to bind to key proteins in micro-organisms.

Effective against a broad spectrum of microbes, **Protec+™** prevents the growth of bacteria and fungi, providing a more hygienic surface and protecting against their potentially negative effects by

- ✓ Stopping cell division
- ✓ Damaging the bacteria/microbes structures
- ✓ Disrupting energy production and other essential functions



**Protec+™** has been independently tested against **ISO 22196:2011**, **JIS Z2801** and **ASTM G21** and provides an effective secondary support to existing cleaning regimes in the fight against contamination.



## A SAFER, CLEANER AND MORE HYGIENIC ENVIRONMENT, WITH A REDUCTION OF UP TO 99.5% OF MICROBES ACHIEVED IN 2 HOURS!

This protection will last for the expected lifetime of the product and microbial growth is continually reduced helping to

- ✓ Reduce cross-contamination
- ✓ Prevent odours and stains
- ✓ Prevent product deterioration 24 hours a day

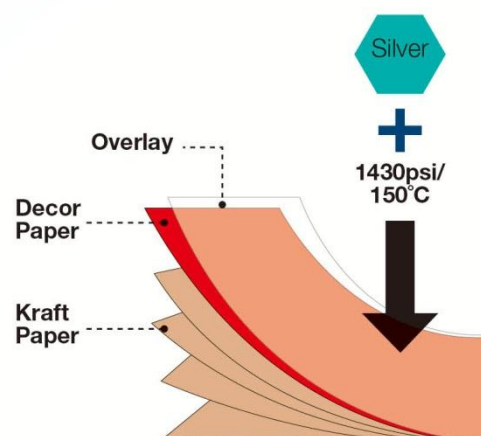


# ADVANTAGES OF Protec+™ ANTIMICROBIAL TECHNOLOGY

While there are other antimicrobial HPL products available, our experienced technical and service capabilities combined with strong manufacturing and logistics capabilities, alongside with **BioCote®**, makes **Protec+™** the ideal choice in your market place.

In the form of silver ions, the technology is introduced during the manufacturing process providing the surface with protection.

*For a peace of mind, choose the safe choice. Choose Protec+™.*



FEATURES OF THE ACTIVE ANTIMICROBIAL INGREDIENT	FORMICA (SILVER)	ORGANIC COMPONENT (EG. TRICLOSAN)
WHAT IS THE ACTIVE INGREDIENT?	Silver (Ag <sup>+</sup> )	Triclosan
PERFORMANCE OF ACTIVE	Effective against wide range of microbes.	Effective against wide range of microbes.
DOES THE ACTIVE LEACH FROM PRODUCT?	No	Yes
LIFE EXPECTANCY	Performance continues for the expected life of product.	Performance reduced with product use (due to leaching).
HARMFUL TO HUMANS?	Not regarded as harmful to humans.	Triclosan has been associated with harmful effects to humans.
ACTIVE METHOD AGAINST MICROBES	Multiple targets in microbe.	Typically single target in microbe.
RESISTANCE TO ACTIVE	Little concern from microbiologist.	More widespread concern from microbiologists. General and published concern that Triclosan can contribute to micro-organisms forming a resistance to antibiotics.
ANTIMICROBIAL LAMINATE PERFORMANCE	Rigorous and continuous. Independent certification available by active ingredient supplier to Formica.	Limited detail available to verify performance.
REGULATIONS	Registered around the world and viewed favourably by competent authorities.	Being viewed unfavourably / de-listed and reviewed by various competent authorities.



# LET **Protec** <sup>TM</sup>

## HELP YOU IN THE FIGHT AGAINST MICROBES!



**Protec** <sup>TM</sup> has been tested and proven effectively against a wide range of microbes, and it can provide an effective secondary support to existing cleaning regimes in the fight against contamination in all environments. Some typical application areas:

- a. Medical/Dental
- b. Primary care/Residential care
- c. Food and Catering
- d. Locker Rooms/Toilets
- e. Sports centers
- f. Public Transport
- g. Schools, Libraries
- h. Communal areas
- i. Health/Beauty



# Protec <sup>TM</sup> TECHNICAL INFORMATION

Tested in Accordance with JIS Z2801 and ASTM G21 Standards

PROPERTY	BACTERIA	TEST METHOD	REDUCTION OF BACTERIA
<b>Reduction of Bacteria</b>	<i>Methicillin resistant Staphylococcus aureus</i>	JIS Z2801	>99%
	<i>Escherichia coli</i>	JIS Z2801	>99%
	<i>Enterococcus faecalis</i>	JIS Z2801	>99%
	<i>Klebsiella pneumoniae</i>	JIS Z2801	>99%
	<i>Pseudomonas aeruginosa</i>	JIS Z2801	>99%
	<i>Salmonella typhimurium</i>	JIS Z2801	>99%
	<i>Staphylococcus aureus</i>	JIS Z2801	>99%
PROPERTY	FUNGI / MOULD	TEST METHOD	RATING
<b>Fungi / Mould Growth</b>	<i>Aspergillus niger</i>	ASTM G21	0
	<i>Penicillium pinophilum</i>	ASTM G21	0
	<i>Chaetomium globosum</i>	ASTM G21	0
	<i>Gliocladium virens</i>	ASTM G21	0
	<i>Aureobasidium pullulans</i>	ASTM G21	0

\*According to ASTM G21, Rating "0" means none observed fungal growth on sample

# SOLID COLOURS IN MATTE™



**AM 0949**  
White



**AM 7197**  
Dover White



**AM 0933**  
Mission White



**AM 3200**  
Ultra White



**AM 0431**  
Aquamarine



**AM 0927**  
Folkstone



**AM 5491**  
Cameo Pink



**AM 1192**  
Porcelana



**AM 0932**  
Antique White



**AM 8194**  
Iris



**AM 2966**  
Opal



**AM 1994**  
Fox



**AM 0865**  
Almond Blossom



**AM 0901**  
Gobi



**AM 0921**  
Birch



**AM 3300**  
Grecian Blue



**AM 8236**  
Avocado



**AM 0961**  
Fog



**AM 0925**  
Champagne



**AM 0958**  
Beige



**AM 0231**  
Peaceful Blue



**AM 4177**  
Lime



**AM 0912**  
Storm





# WOOD GRAINS

IN MATTE™



**AM 9010**  
Colorado Oak



**AM 8843**  
Natural Ash



**AM 0869**  
Powdered Oak



**AM 7182**  
Dunewood



**AM 9005**  
Finline



**AM 0860**  
Blond Afromosia



**AM 5483**  
Mocca Firwood



**AM 8844**  
Aged Ash



**AM 0861**  
Olive Afromosia



**AM 9205**  
Legno Finline Brown



**AM 5372**  
Vintage Wood



**AM 5485**  
Spice Maple



## A Global Brand of Interior Decorative Surfaces, Innovation and Leadership in Design

Founded in 1913 by Hebert A. Faber and Daniel J. O'Connor, Formica Group has evolved to become the world's preferred manufacturer for decorative surfaces. Driven by new challenges and delivering constant innovations, we have been setting and surpassing benchmarks for quality laminates worldwide ever since.

Formica® is an iconic brand, which is intrinsically linked with the material, High Pressure Laminate (HPL). We have developed an unrivalled expertise that ensures products are fit for purpose and meet market demands. Working closely with architects, designers and specifiers, the company is ideally placed to offer new products and decors which complement current design trends, and has an ongoing product design and development process.

**Formica®: Designs for today with forever in mind.**

FORMICA GROUP IS COMMITTED TO MAKING SUSTAINABLE PRINCIPLES AND PRACTICES A PART OF EVERYTHING WE DO. WE STRIVE TO ADHERE TO THE HIGHEST ETHICAL STANDARDS AS WE ADVANCE IN OUR EFFORTS TO PROTECT VITAL RESOURCES FOR FUTURE NEEDS.

With sustainability a concern for the global community, Formica Group makes it a priority to offer architects, designers and consumers a full range of environmentally friendly surfacing products. Formica Group continually strives to create innovative products that promote a healthier environment.



### **GREENGUARD Certification**

Formica® Laminates, Compact® and DecoMetal® are certified in Asia for the GREENGUARD Certification and GREENGUARD Gold Certification



### **Carbon Reduction Label**

Formica Group becomes the first laminate manufacturer in the world to be awarded with Carbon Trust's Carbon Reduction Label.



### **FSC™ Chain of Custody Certification**

In 2012, Formica Asia (covering China, Taiwan and Thailand) has been awarded with FSC™ Chain of Custody Certification.



# Formica® Laminate

THE ORIGINAL HIGH PRESSURE LAMINATE *by* FORMICA GROUP

## Taiwan

### Formica Taiwan Corporation

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