

ISO 846:1997 & ISO 22196 certified film

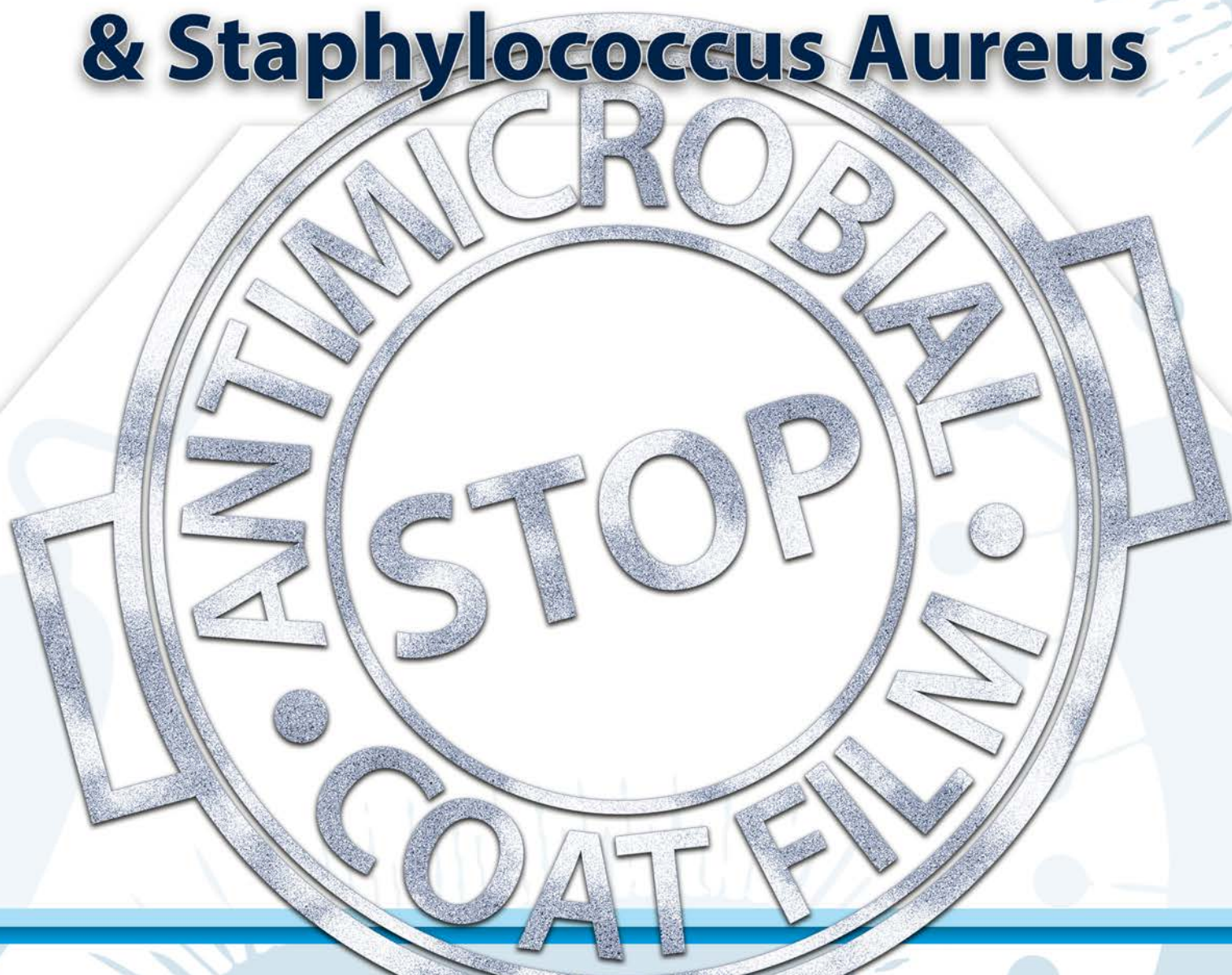
IKONOS

factory of coated - decoration - self adhesive films

07.2019

**New anti-bacterial film
to prevent propagation of microbes**

**Tested on
Escherichia Coli
& Staphylococcus Aureus**



What is this new product?

It is transparent PVC film 90 microns thick with the **antimicrobial additive**.

The coat prevents propagation of bacterias on the laminated surfaces! The property was deeply checked and is confirmed by official **certificates: ISO 846:1997 Method C; ISO 22196**.

The film has both glossy & matt variants and it is suitable for printing and/or over lamination.



What is the true value of the film?

The antibacterial film suits perfectly for every place and institution where a sterile environment must be maintained.



Results ISO 846:1997 Method C

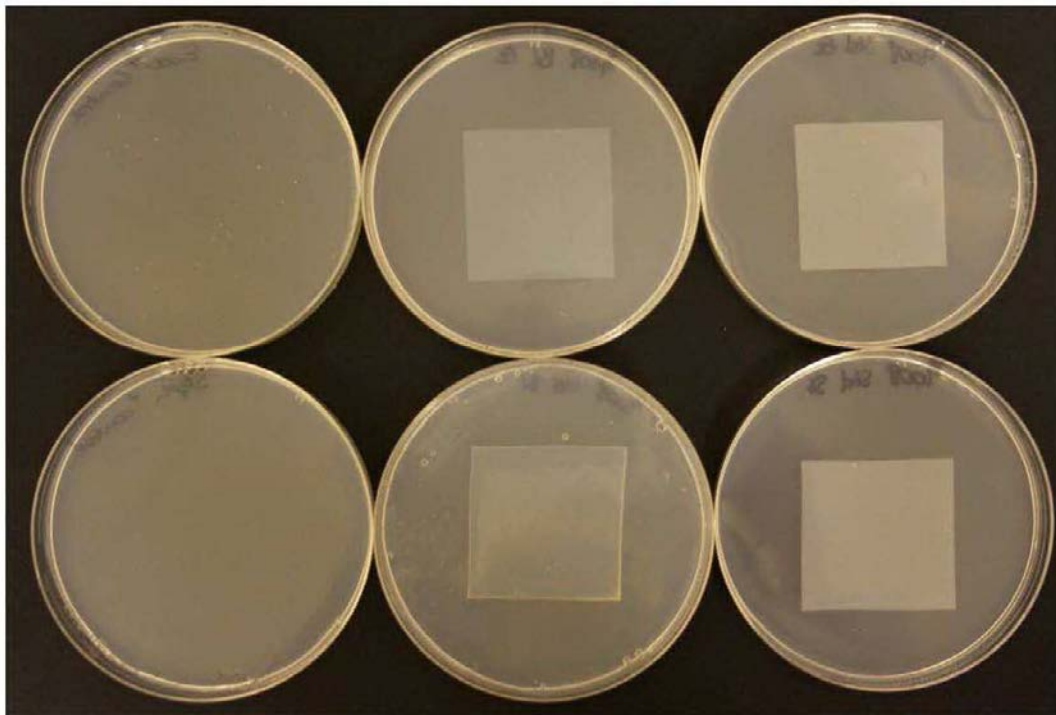
Assessment of Bacterial Growth - ISO 846 C

Table 1

Sample	Intensity of Growth after 28 days incubation		
	replicate I	replicate II	replicate III
<i>Escherichia coli</i>			
Laboratory control	-	-	-
XBAA Blank	+	+	-
POO4ICS ODL 671	-	-	-
<i>Staphylococcus aureus</i>			
Laboratory control	-	-	-
XBAA Blank	+	+	-
POO4ICS ODL 671	-	-	-

Photo 1: ISO 846 C Bacterial propagation - one of each triplicate set of samples

Control *E.Coli* XBAA Blank *E.Coli* POO4ICS *E.Coli*



Control *S.aureus* XBAA Blank *S.aureus* POO4ICS *S.aureus*

Results Bacterial Streak Plate

Assessment of Anti-bacterial Activity - parallel streak plate

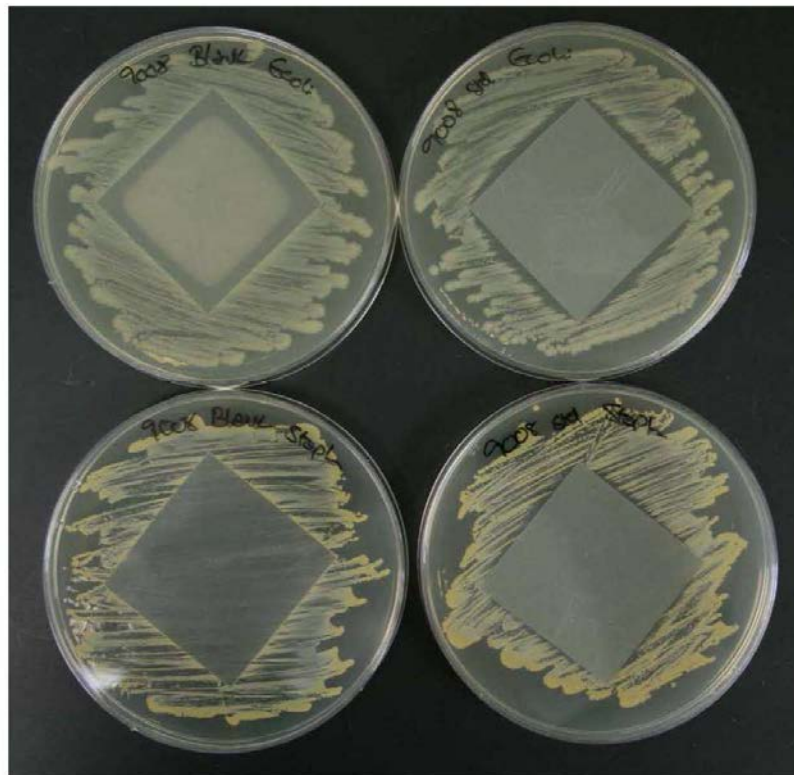
Table 2

Sample	Presence/Absence of growth under/at edge of test sample					
	replicate I		replicate II		replicate III	
	Growth	Zone	Growth	Zone	Growth	Zone
<i>Escherichia coli</i>						
Laboratory control	+		+		+	
XBAA Blank	+	0	+	0	+	0
POO4ICS ODL 671	-	1 mm	-	1 mm	-	2 mm
<i>Staphylococcus aureus</i>						
Laboratory control	+		+		+	
XBAA Blank	+	0	+	0	+	0
POO4ICS ODL 671	-	1 mm	-	2 mm	-	2 mm

Photo 2: Parallel Streak plates - Evaluation of Bacteriostatic Effect

XBAA Blank *E.Coli*

POO4ICS *E.Coli*



XBAA Blank *S.aureus*

POO4ICS *S.aureus*

Results ISO 22196

Measurement of Antibacterial Activity ISO 22196 - *Escherichia coli*

Table 3

Time hr	Sample ID	Count	Mean plate count C	Dilution Factor D	Log Viable bacteria recovered N	Validation <0,2	Antibacterial activity R
0	Blank a	55	76,33	100,00	1,19E+04	0,123632	
0	Blank b	80					
0	Blank c	94					
24	Blank a	30	33,33	10,00	5,21E+02		
24	Blank b	33					
24	Blank c	37					
24	POO4ICS a	0	0,00	1,00	0,00E+00 =<V		2,72
24	POO4ICS a	0					
24	POO4ICS a	0					

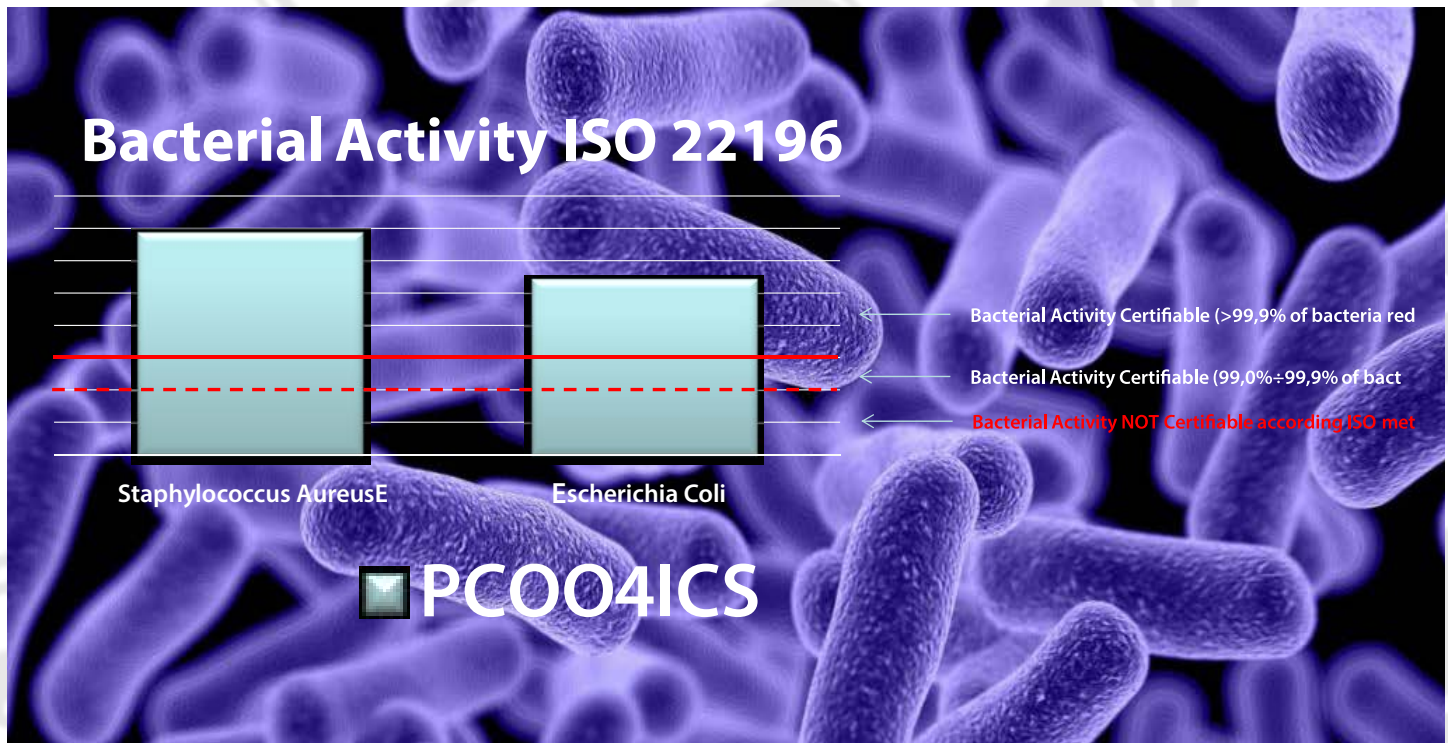
Inoculum volume = 0.4ml of 3.6×10^5 cells per ml diluted in 10 ml Neutraliser for recovery

Measurement of Antibacterial Activity ISO 22196 - *Staphylococcus aureus*

Table 4

Time hr	Sample ID	Count	Mean plate count C	Dilution Factor D	Log Viable bacteria recovered N	Validation <0,2	Antibacterial activity R
0	Blank a	137	158,67	100,00	2,48E+04	0,0549688	
0	Blank b	158					
0	Blank c	181					
24	Blank a	153	180,00	10,00	2,81E+03		
24	Blank b	184					
24	Blank c	203					
24	POO4ICS a	0	44,67	1,00	6,98E+01		3,44
24	POO4ICS a	0					
24	POO4ICS a	134					

Inoculum volume = 0.4ml of 3.16×10^5 cells per ml diluted in 10 ml Neutraliser for recovery



**The antibacterial properties were tested on the raw, unmodified product.
We advise to test the antimicrobial efficiency of the film
for process it is used for.**



The ideal solution for hospitals, kindergartens, pharmacies & laboratories.



Where else can it be useful?