

Report

ID: 19061002

Customer	A.M.C. – ARTÍCULOS DE MENAJE PARA COLECTIVIDADES
Project	C671
Reception date	04/06/2019
Start date	06/06/2019
End date	10/06/2019
Activity	Antimicrobial Activity on Plastic Surfaces
By	Mercedes Monte / Microbiology Department

Method JIS Z 2801 (ISO 22196) – Antibacterial products - Test for antibacterial activity and efficacy (*see Annex I*)

Sample References

C671/19060600 Internal Control – Glass slide
C671/19060401 REF: 1306311 - 5% Bactiblock MB
B0/PP 20% - E19022001
C671/19060402 REF: 1306311 - 5% Bactiblock MB
B4/PP 20% - E19022002

Microorganisms *Staphylococcus aureus* CECT 240, ATCC 6538P
Escherichia coli CECT 516, ATCC 8739

Comments

Results

Staphylococcus aureus CECT 240, ATCC 6538P

Sample	Description	CFU/ml 1	CFU/ml 2	CFU/ml 3	Average CFU/ml	SDlog	%red	R
C671/19060600	Internal Control – Glass slide	3,61E+06	3,63E+06	3,12E+06	3,45E+06	0,04	-	-
C671/19060401	REF: 1306311 - 5% Bactiblock MB B0/PP 20% - E19022001	1,00E+01	1,00E+01	1,00E+01	1,00E+01	0,00	99,99	5,54
C671/19060402	REF: 1306311 - 5% Bactiblock MB B4/PP 20% - E19022002	1,00E+01	1,00E+01	1,00E+01	1,00E+01	0,00	99,99	5,54

Escherichia coli CECT 516, ATCC 8739

Sample	Description	CFU/ml 1	CFU/ml 2	CFU/ml 3	Average CFU/ml	SDlog	%red	R
C671/19060600	Internal Control – Glass slide	2,84E+07	3,88E+07	4,16E+07	3,63E+07	0,09	-	-
C671/19060401	REF: 1306311 - 5% Bactiblock MB B0/PP 20% - E19022001	1,00E+01	1,00E+01	1,00E+01	1,00E+01	0,00	99,99	6,56
C671/19060402	REF: 1306311 - 5% Bactiblock MB B4/PP 20% - E19022002	1,00E+01	1,00E+01	1,00E+01	1,00E+01	0,00	99,99	6,56



Annex I

Antimicrobial effectiveness according to the Standard JIS Z 2801:2006 (ISO 22196) Antimicrobial products – Test for antimicrobial activity and efficacy

Introduction

The antimicrobial performance of materials is typically tested using the standard protocol for surface antimicrobial activity JIS Z 2801 (JIS stands for Japanese Industrial Standard), which is equivalent to International method ISO 22196:2007. This is the reference method for the industry, and it is carried out all over the world.

Our laboratory is specialized in carrying out this method, providing excellent customer service.

This method pretends to reflect real conditions of the material. R value defines whether a product or a material is considered to present antimicrobial properties.

Each sample was inoculated with ca. $1 \cdot 10^5$ CFU (colony forming units) and incubated at 37°C, 100% RH for 24 hours.

The value of antimicrobial activity of the samples tested by the Standard JIS Z 2801 was determined through the following formula:

$$R = \log (B/C)$$

Where B is the average of the number of viable cells of bacteria on the untreated test piece after 24 h, and C is the average of the number of viable cells of bacteria on the antimicrobial test piece after 24 h.

When $R \geq 2.0$, the samples are considered to present biocide properties.

Graphic

JIS Z 2801 : 2006

