

Report Reference:

Generic Powder Coat - 3 year accelerated ageing

Client:

NA

Material tested:

Steel Sheet with Powder Coat

Test Laboratory:

Anti-Microbial Test Division, Kyoto Biseibutsu Kenkyusyo
Yamashina-ku, Kyoto 607-8482, Japan

Evaluation of the antimicrobial performance of samples containing antimicrobial additives. All testing is conducted by an independent laboratory using the ISO 22196 / JIS Z 2801:2000 test method.

Introduction

This report details the analysis carried out on the test samples, including an overview of the test method, the test results, an interpretation of those results and copies of the associated laboratory certificates.

Test samples

Where possible, all test materials are taken from samples of the actual product. Samples typically measure 50mm x 50mm, as specified by the JIS Z 2801:2000 method, although where this is impractical it is permissible to use smaller samples with the method being modified accordingly.

Sample Ref.	Description
Control	Untreated polyethylene film
52220 - A	After 3 years accelerated ageing - 10 weeks at 60°C
52220 - B	After 3 years accelerated ageing - 10 weeks at 60°C
52220 - C	After 3 years accelerated ageing - 10 weeks at 60°C

Test method

The samples were tested according to the JIS Z 2801:2000 method, briefly summarised as follows;

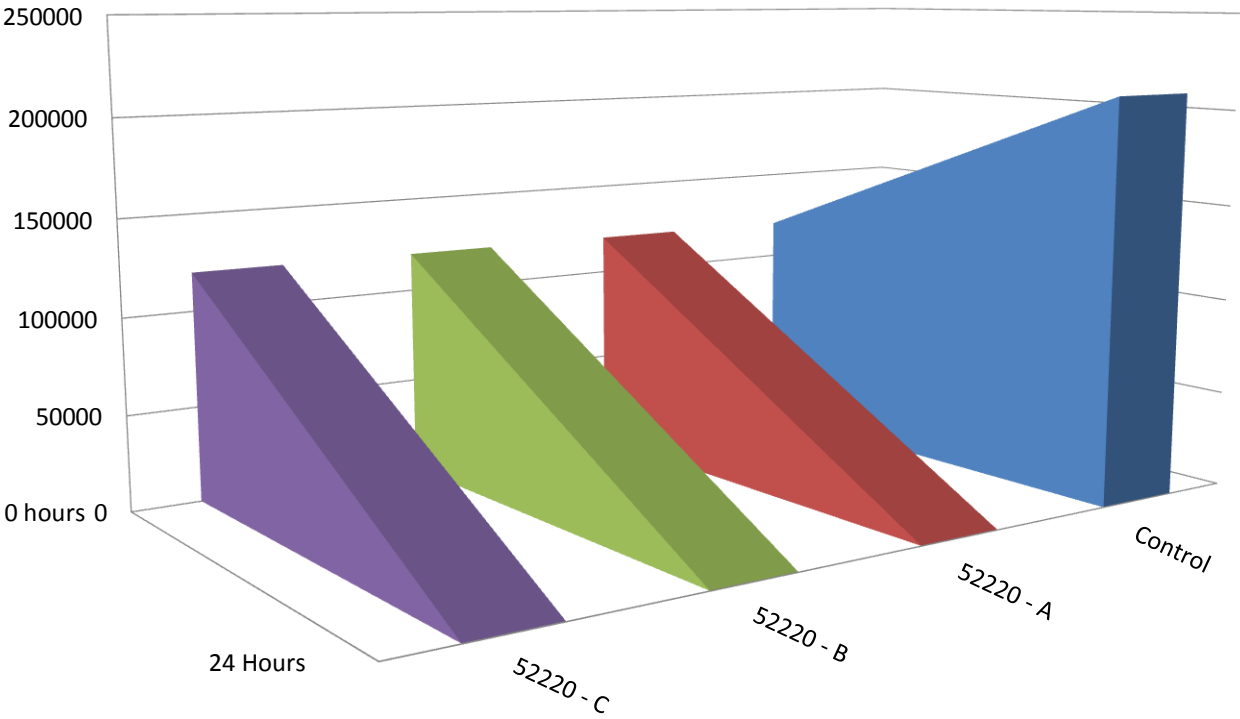
Each test sample is inoculated with a suspension of the test organism (for example, MRSA). The inoculum is held in contact with the test sample using a sterile polyethylene film. All test samples are inoculated in triplicate, with an additional three replicates of the control.

The bacterial population on three control replicates is evaluated immediately following inoculation. This is assumed to be the initial population on all test samples (i.e. the population at zero hours).

The remaining samples are incubated for the test period (24 Hours) at 35°C, at which time the bacterial population is evaluated.

Results - MRSA tested at 35°C

Sample			Number of live organisms (Colony Forming Units)		% reduction of Colony Forming Units, expressed as comparison with control	
			0 hours	24 Hours		
Control	Untreated polyethylene film		120000	210000	N/A	
52220 - A	After 3 years accelerated ageing - 10 weeks at 60°C		120000	<10	>99.995% Reduction	EXCELLENT
52220 - B	After 3 years accelerated ageing - 10 weeks at 60°C		120000	<10	>99.995% Reduction	EXCELLENT
52220 - C	After 3 years accelerated ageing - 10 weeks at 60°C		120000	<10	>99.995% Reduction	EXCELLENT



Results - E. coli tested at 35°C

Sample			Number of live organisms (Colony Forming Units)		% reduction of Colony Forming Units, expressed as comparison with control	
			0 hours	24 Hours		
Control	Untreated polyethylene film		100000	11000000	N/A	
52220 - A	After 3 years accelerated ageing - 10 weeks at 60°C		100000	<10	>99.9999% Reduction	EXCELLENT
52220 - B	After 3 years accelerated ageing - 10 weeks at 60°C		100000	<10	>99.9999% Reduction	EXCELLENT
52220 - C	After 3 years accelerated ageing - 10 weeks at 60°C		100000	<10	>99.9999% Reduction	EXCELLENT

