

Antimicrobial performance report 1422 – Ducavin ABC

Evaluation of the antimicrobial performance of samples containing SteriTouch® additives.

All testing is conducted by an independent laboratory using the 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.

Control:	Untreated Polyethylene film
Test samples:	Ducavin ABC – Clear, Medium Impact, Rigid Extrusion Compound Ducavin ABC – Opaque, Medium Impact, Rigid Extrusion Compound Ducavin ABC – Easy Flow, Rigid Injection Moulding Compound Ducavin ABC – Clear Flexible Compound Ducavin ABC – Opaque Flexible Compound

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.

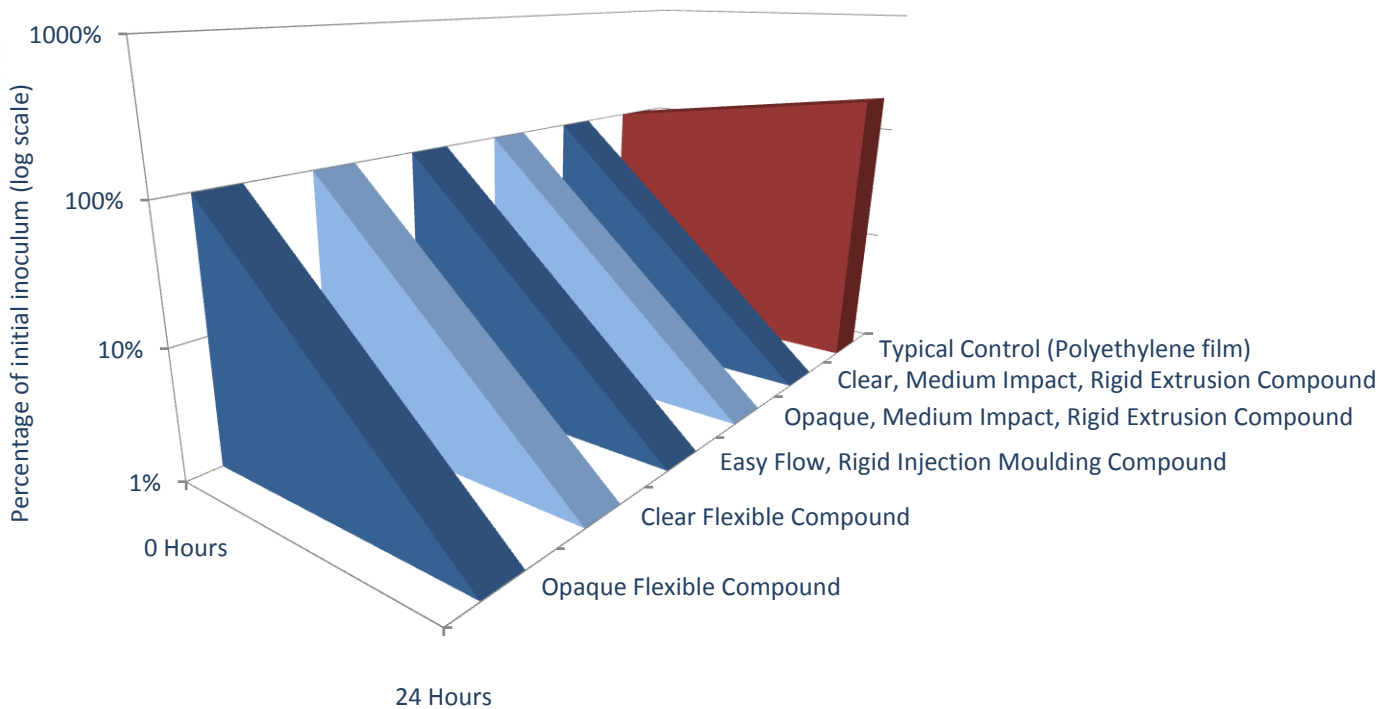
The bacterial population on three control replicates is evaluated immediately following inoculation. This is assumed to be the initial population on all test samples (i.e. the population at zero hours).

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

Results – MRSA

The following tables show the average results for each test sample.

Sample	Comparison with initial inoculum
Control (polyethylene film)	50% growth
Ducavin ABC – Clear, Medium Impact, Rigid Extrusion Compound	99.99% reduction
Ducavin ABC – Opaque, Medium Impact, Rigid Extrusion Compound	99.99% reduction
Ducavin ABC – Easy Flow, Rigid Injection Moulding Compound	99.9% reduction
Ducavin ABC – Clear Flexible Compound	99.99% reduction
Ducavin ABC – Opaque Flexible Compound	99.99% reduction



Notes:

CFU = Colony Forming Units

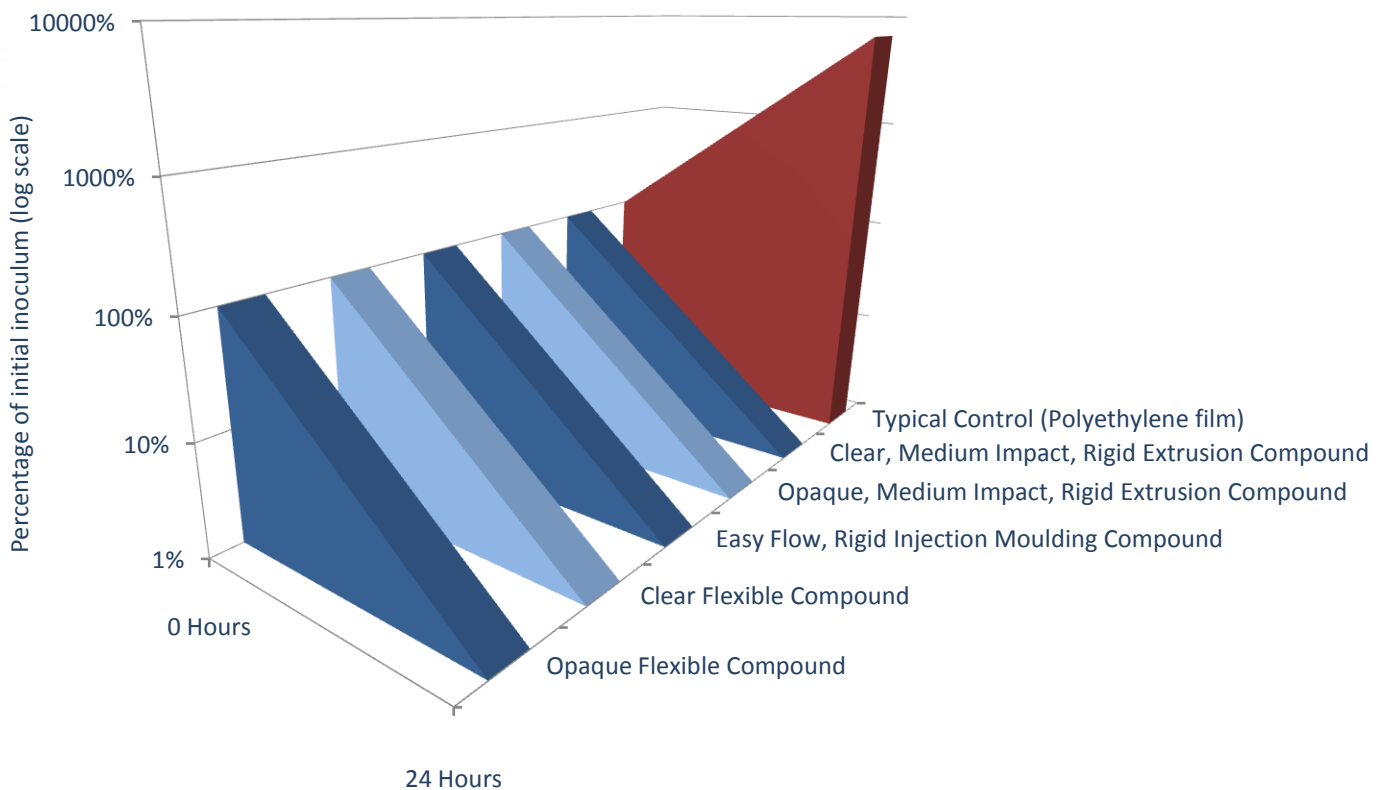
The theoretical limit of detection is 10 CFU. If no bacteria are recovered, the result is reported as “<10 CFU”

Results are typical data obtained from pressed plaques. The moulded/extruded product should be tested to confirm performance.

Results – E. coli

The following tables show the average results for each test sample.

Sample	Comparison with initial inoculum
Control (polyethylene film)	8000% growth
Ducavin ABC – Clear, Medium Impact, Rigid Extrusion Compound	99.999% reduction
Ducavin ABC – Opaque, Medium Impact, Rigid Extrusion Compound	99.98% reduction
Ducavin ABC – Easy Flow, Rigid Injection Moulding Compound	99.99% reduction
Ducavin ABC – Clear Flexible Compound	99.999% reduction
Ducavin ABC – Opaque Flexible Compound	99.8% reduction



Notes:

CFU = Colony Forming Units

The theoretical limit of detection is 10 CFU. If no bacteria are recovered, the result is reported as “<10 CFU”
Results are typical data obtained from pressed plaques. The moulded/extruded product should be tested to confirm performance.