



**ADVANCE VI TECH (MALAYSIA) SDN. BHD.** (895110-W)

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## LABORATORY TEST REPORT

REPORT DATE : 14-Sept-2018  
SUBJECT : Measurement of bacterial repellent and antibacterial activity properties on BACTOSTAT PP RP1034  
TESTING METHOD : Modified International Standard ISO 22196 and International Standard ISO 22196  
TEST CONDUCTED : Malaysia Laboratory  
BY

Test Product Sample : BACTOSTAT PP RESIN, GRADE RP1034

Origin of Product : Hong Kong

Product Manufacturer : The Hong Kong Polymer Science Ltd.

Product Distributor : DragonChem Limited

### (1) Measurement of bacterial repellent properties on BACTOSTAT PP RP1034

Test Method: **Modified International Standard ISO 22196**

Incubation temperature: 37°C

Incubation period: 48 hours

Agar medium: Plate Count Agar

Test Culture: *Staphylococcus aureus* , OD value:1.5~1.6

Test Specimen: 60mm in diameter flat circle of treated and untreated samples.

Test Condition: 2ml of bacterial inoculums was added onto surface of the test specimen samples. Bacterial inoculum was incubate for 24 hours on surface of the test specimen samples and washed off by saline water. Remaining bacteria on surface of the test specimen samples will be transfer to agar plate by using swab method. Growth of bacteria was recorded after another 24 hours.



(1) Test Result :

Sample	RP1034 sample 2		RP1034 sample 1
(A)Untreated *, 0 hrs	$7 \times 10^7$	(A)Untreated *, 0 hrs	$7 \times 10^7$
Logged means	7.84	Logged means	7.84
(B)Untreated *, 24hrs	$5.7 \times 10^4$	(B)Untreated *, 24hrs	$5.7 \times 10^4$
Logged means	4.75	Logged means	4.75
(C) Treated 24hrs	$6 \times 10^1$	(C) Treated 24hrs	$2.6 \times 10^2$
Logged means	1.77	Logged means	2.42
Bacterial Repellecny Percentage	99.89%	Bacterial Repellecny Percentage	99.54%

REMARKS: OD =1.596

Formula of repellency:

{1-(**treated sample's** bacteria conc after 24 hrs/**untreated sample's** bacteria conc after 24hrs)} X100%

(2) Measurement of antibacterial activity properties on BACTOSTAT PP RP1043

Test Method: **International Standard ISO 22196**

Incubation temperature: 37°C

Incubation period: 48 hours

Agar medium: Plate Count Agar

Test Culture: *Staphylococcus aureus* , OD value:1.5~1.6

Test Specimen: 60mm in diameter flat circle of treated and untreated samples.

Test Condition: 2ml of bacterial inoculums was added onto surface of the test specimen samples.

(2) Test Result :

Sample	$U_0$	$U_t$	$A_t$	R	%R
RP1034 sample 2	7.84	11.06	8.813	2.25	99.43
RP1034 sample 1	7.84	11.06	10	1.06	91.30

REMARKS: OD =1.596



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Formula:  $\frac{1-10^R}{10^R} \times 100\%$

Signed and on behalf of AVI Bio-Lab

Lai K

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L.K. Moh, Technical Manager