



Test Report

Antimicrobial Evaluation of PE Samples

Provided by

Foshan Yufeng Plastic Hardware Factory

Test Number: TS -00687
2013, 12, 19

Antimicrobial Evaluation of PE Samples
Foshan Yufeng Plastic Hardware Factory

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1. TSR Number

TS-00687

2. Sample Name

PE samples: A-add 0.4% Zinc Omadie Powder

3. Test Objectiv

The objective of this test is to verify the Anti-bacterial and anti-fungi efficacy of LONZA'S Zinc Omadie Powder which is used in PE for new applications.

4. Test Time

Nov 17, 2013- Dec 15, 2013

5. Test Method

JIS/Z2801 Antimicrobial_products_test_for_antimicrobial_activity_and_efficacy

ASTM G21 Determining Resistance of Synthetic Polymeric Materials to Fungi

6. Bacterial Strains

Escherichia coli	ATCC 8739
Staphylococcus aureus	ATCC 6538
Aspergillus niger	ATCC 6275
Aspergillus flavus	ATCC 15836

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7. Conclusions

According to the test results, 0.4% Zinc Omadie Powder is sufficient to protect these samples from the growth of bacteria and fungi.

8. Results

Test Item	Anti-bacterial test	
Sample Name	PE samples: A-add 0.4% Zinc Omadie Powder	
Sterilization method	121℃ 15 min	
Incubate time, condition	37℃ 48h	
Storing time	37℃ 24h	
Bacteria concentration (cfu/ml)	Staphylococcus aureus	Escherichia coli
	6.80×10^5	2.95×10^6
The viable bacteria concentration of the Filter paper after 24 h, 37℃ (cfu/ml)	2.84×10^7	3.4×10^7
The viable bacteria concentration of the test specimens after 24 h, 37℃ (cfu/ml)	<10	<10
Antibacterial activity of sample A(%)	>99.99%	>99.99%

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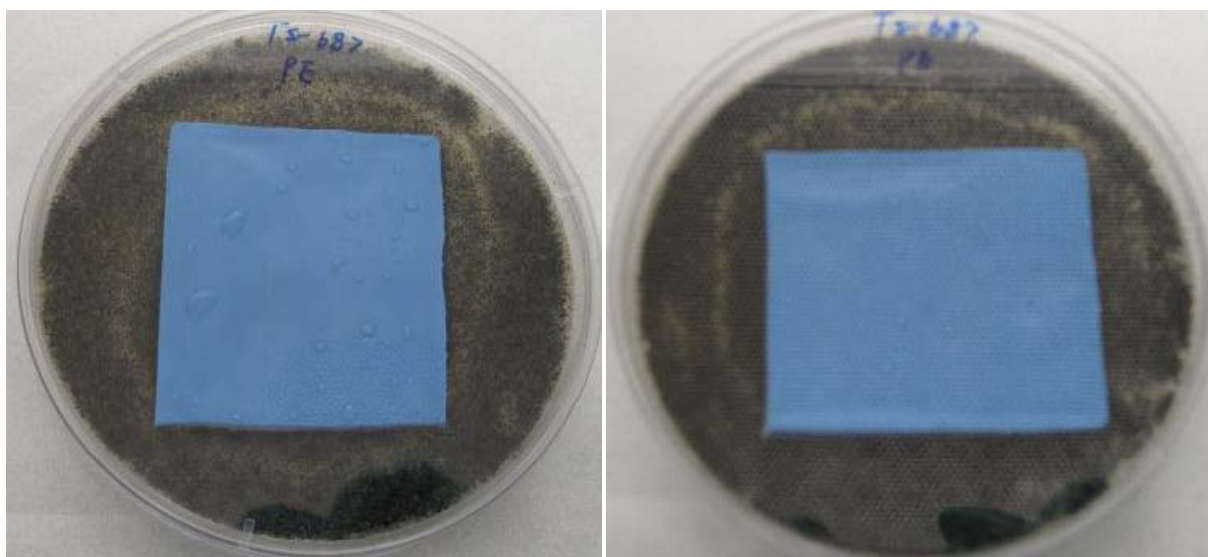
Test Item	Anti-fungi test	
Sample Name	PE samples: A-add 0.4% Zinc Omadie Powder	
Sterilization method	121℃ 15 min	
Incubate time, condition	28℃ , Relative humidity >90%, 28d	
Fungi (Aspergillus niger 、 Aspergillus flavus) mixture concentration (spores/ml)	1.0*10 ⁶	
Results, Rating (Surface Growth)	A	0 ,0

Rating Definitions::

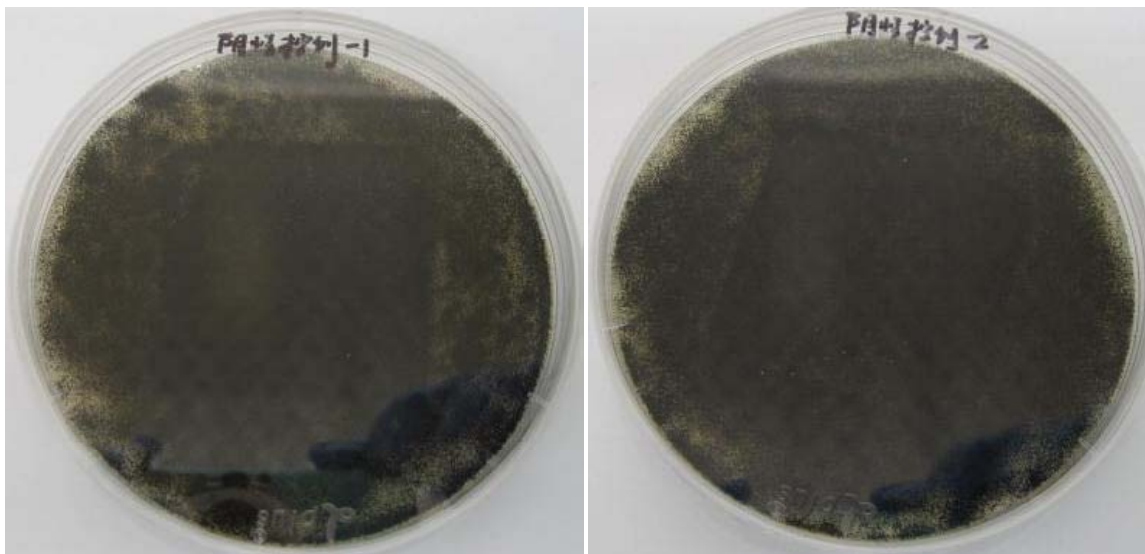
- 0—No growth on surface of test piece
- 1—Trace growth, less than 10% coverage
- 2—Heavy growth, Not less than 10% coverage

Annex picture:

A



Negative control



CONTACT INFORMATION

We believe that this report will offer some help to you.

If you have any questions, please contact us through the following way.

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