

Holdrite

Microbiological Analysis Report

Project No: 14118-A

Date Received: 2/11/2019

Date of Analysis: 2/11/2019

Subject: Fungal Resistance Testing**Background & Objectives**

Five samples were received for fungal resistance testing using the ASTM G21 test method.

Protocol

ASTM G21-15, Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi, test was strictly followed.

Overview of Test Protocol

This test method is designed for the qualitative determination of mildew (fungus) resistance of synthetic polymeric materials, particularly those types which have been given a fungus resistant treatment.

Specifics of the Test

Lab ID	Sample ID
14118-A	HydroFlame™ 50

Test Inoculum

The fungal inoculum consisted of five species:

Aspergillus brasiliensis ATCC 9642

Chaetomium globosum ATCC 6205

Penicillium funiculosum ATCC 11797

Trichoderma virens ATCC 9645

Aureobasidium pullulans ATCC 15233

Test samples were placed in petri dishes on nutrient salts agar and inoculated with the test fungi. The samples were incubated at 28°C for 4 weeks and examined weekly for the growth of the test organisms.

Holdrite

Microbiological Analysis Report

Project No: 14118-A

Evaluation of Results

For the evaluation of the relative resistance of synthetic polymeric materials, the following rating system was used:

Fungal Growth Rating Legend	
None	0
Traces of growth (less than 10%)	1
Light growth (10-30%)	2
Medium growth (30-60%)	3
Heavy growth (60% to complete coverage)	4

Results

Table 1 shows the Fungal Resistance Test results.

Conclusions

The Holdrite sample HydroFlame™ 50 showed fungal resistance after four weeks in the ASTM G21 test. No growth was observed on the samples. There were little depressions formation on the sample with the inoculum droplets.

Geetanjli Sharma
Microbiologist

Silveria Cristo
Microbiologist

Holdrite
Microbiological Analysis Report - ASTM G21-15

Project No: 14118-A

Table 1. Fungal Resistance of Polymeric Surfaces

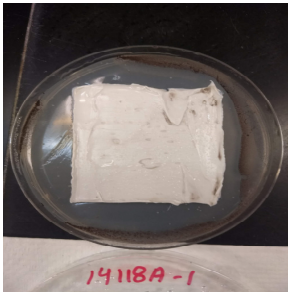
Lab Identification	Sample	Observed Fungal Growth on Treated Surface after 28 days Incubation at 28-30°C		
		1	2	3
14118-A	HydroFlame™ 50	0	0	0
PC	Growth Control (Whatman filter paper)	4		

Fungal Growth Rating Legend	
None	0
Traces of growth (less than 10%)	1
Light growth (10-30%)	2
Medium growth (30-60%)	3
Heavy growth (60% to complete coverage)	4

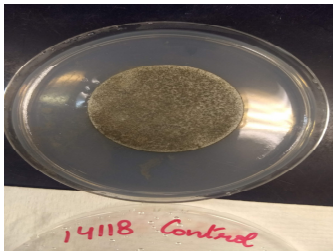
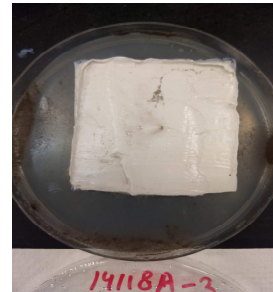
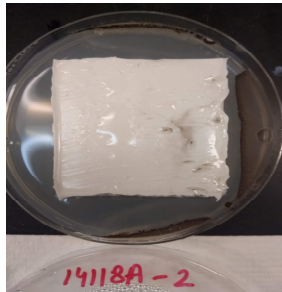
Holdrite
Microbiological Analysis Report - ASTM G21-15

Project No: 14118-A

Photos after 4 weeks of testing:



14118-A



Whatman Filter Paper