



Holdrite Microbiological Analysis Report

Project No: <u>10609-A</u> Date Received: 4/28/2016 Date of Analysis: 5/4/2016

Subject: Fungal Resistance Testing

Background & Objectives

Four samples were submitted for analysis using the ASTM G21-13 method.

Protocol

ASTM G21-13, 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

Sample Identification

Lab ID	Sample ID
10609-2	HydroFlame™ 200

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, tested in triplicate, 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.

3/14/2019



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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[™] 200, showed no growth after four weeks in the ASTM G21-13 Test.

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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
10609-2	HydroFlame™ 200	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			