

# ASTM C 1338-19

## *Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings*

*FINAL REPORT: R2020-505-2*  
*AMENDMENT TOR2020-505*

*Accredited Testing Provided by:*



130 Erick Street  
Crystal Lake, IL 60014  
815.526.0954  
TESTING CERT: #2832.01

*Testing Initiated: August 28, 2020*  
*Testing Completed: September 25, 2020*  
*Report Issued: February 10, 2021*

Performed By: Marcy Aaron  
Title: Staff Scientist

Approved By: Debbie Koester  
Title: Quality Manager



## **Objective:**

To determine the relative ability of two samples to resist fungal growth as seen in the ASTM C1338 – 19 fungal resistance test.

## **Test Sample Identification:**

1. OMNI C WHITE POLYESTER

## **Test Procedure Summary:**

Test pieces are sprayed with a mixed spore suspension of five fungal strains. Inoculated samples were then placed into a chamber maintained at  $30 \pm 2^\circ\text{C}$  and  $95 \pm 4\%$  relative humidity for 28 days. At the end of the incubation period, samples were examined at 40X magnification.

### Test Variables

<b>Test Organisms:</b>	<i>Aspergillus brasiliensis</i> <sup>1</sup>	ATCC 9642
	<i>Talaromyces pinophilus</i> <sup>2</sup>	ATCC 11797
	<i>Chaetomium globosum</i>	ATCC 6205
	<i>Aspergillus flavus</i>	ATCC 9643
	<i>Aspergillus versicolor</i>	ATCC 11730
<b>Sample Description:</b>	Samples were tested as received:	
	Sample 1 - 3" x 3" x 1" polyester panels Sample 2 - 3" x 3" x 1/2" polyester panels	
<b>Number of Replicates per Sample:</b>	Three	
<b>Positive Growth Control:</b>	Sterile Filter Paper White birch tongue depressor	
<b>Environmental Conditions:</b>	$30 \pm 2^\circ\text{C}$ ; $95 \pm 4\%$ relative humidity	
<b>Incubation Duration:</b>	28 days	
<b>Pass/Fail Criteria:</b>	Growth not greater than comparative item	
<b>Deviations from Standard Test Method:</b>	None, testing performed per ASTM C1338 without deviation.	

<sup>1</sup> *Aspergillus brasiliensis* formerly classified as *Aspergillus niger*

<sup>2</sup> *Talaromyces pinophilus* formerly identified as *Penicillium funiculosum*



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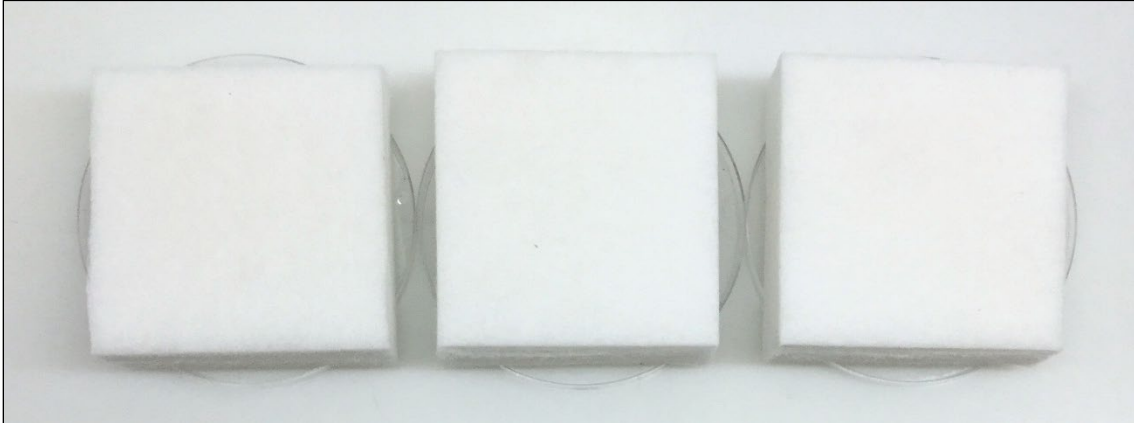
The results for the test pieces can be found in the data table below. Temperature and relative humidity were maintained for the duration of testing. The control test pieces performed as expected, confirming the validity of the test. These results pertain only to the samples tested.

The criterion used to determine Pass/Fail for this test was growth not greater than that on the comparative item / growth greater than comparative item criterion. The comparative item used for the grading of this material was the white birch tongue depressor.

<b>Sample</b>	<b>Rep</b>	<b>Results</b>
OMNI C WHITE POLYESTER	1	Pass - Growth not greater than comparative item
	2	Pass - Growth not greater than comparative item
	3	Pass - Growth not greater than comparative item



Sample after Removal from the Test Chamber



**No fungal growth on all replicates was confirmed at 40X.**

Sample after Removal from the Test Chamber



**Replicates 1 and 2 had trace fungal growth that was only visible after microscopic examination at 40X magnification. The growth was not greater than the comparative item. Replicate 3 had no fungal growth confirmed at 40X.**

### Comparative Item

Comparative Item after Removal from the Test Chamber



**White Birch Control with visible fungal growth.**