



Accugen Laboratories Inc.

FINAL REPORT

ASTM D3273-00

Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber

TEST AGENT

Arcoplast Solid Glass/Resin Core Panel

TESTING LABORATORIES

Accugen Laboratories, Inc
50 West, 75th Street, Suite
Willowbrook, IL 60527
Web: www.accugenlabs.com
Email: info@accugenlabs.com
Toll Free: (800) 282-7102
Phone: (630) 789-8105
Fax: (630) 789-8104

SPONSOR

Arcoplast Wall and Ceiling System
1873 Williamstown Drive
St. Peters, MO 63376
Contact: Ghislain Beauregard
Phone: 636-978-7781
Fax: 636-978-7782
E-mail: ghislain@arcoplast.com

SAMPLE RECEIVED: 07-17-13

MOLD CULTURE IN CHAMBER INITIATED: 07-08-13

AFTER 2 WEEKS OF PREPARATION

TEST STARTED: 07-23-13

TEST COMPLETED: 08-28-13

REPLICATE RECEIVED: 3 each

TABLE OF CONTENTS

FINAL REPORT - COVER PAGE	1
TABLE OF CONTENTS	2
TEST SUMMARY.....	3
TEST CONDITIONS.....	3
STUDY DATES AND FACILITIES.....	3
RECORDS TO BE MAINTAINED.....	3
TEST PROCEDURE	4
RESULTS.....	4
CONCLUSIONS	5
PHOTOS.....	6

TEST SUMMARY

TITLE: Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber- ASTM D3273-00

OBJECTIVE: To test the resistance of test samples to mold growth.

TEST MATERIAL: Samples submitted and identified by sponsor of study as- Arcoplast Solid Glass/Resin Core Panel

TEST CONDITIONS:

Challenge Organisms:

Aureobasidium pullulans ATCC# 9348
Aspergillus niger ATCC# 6275
Penicillium Sp. ATCC# 9849

Sample size: 3 X 4 inches.

Soil Composition: Greenhouse-grade potting soil with 25% peat moss.

Soil pH: 6

Growth Media: Potato dextrose agar

Environment Chamber: Capable of maintaining a relative humidity of 95 to 98% at a temperature of $32.5 \pm 1^{\circ}\text{C}$ providing continuous inoculation of the surface of exposed panels with mold spores.

References: ASTM D3273 – 00 (Reapproved 2005)

STUDY DATES AND FACILITIES:

The laboratory phase of this test was performed at ACCUGEN LABORATORIES, INC, 50 West 75th Street, Willowbrook, Il 60527 from. Study was initiated on 07/17/13. The study completion date is the date the study director signed the final report which is 08/28/13.

RECORDS TO BE MAINTAINED:

All testing data, test material records, the final report, and correspondence will be stored in the archives.

All analytical data and reports are client confidential and available only to the client. Authorization for publication of excerpt, statements, or conclusions regarding our reports is reserved pending written approval from Accugen, Laboratories, Inc.

PROCEDURE:

The test soil was spreaded across the bottom of the test chamber. The chamber was allowed to equilibrate for 24 h before inoculating the soil with mold suspensions. The mixed fungal suspension (Aureobasidium pullulans ATCC# 9348, Aspergillus niger ATCC# 6275 and Penicillium Sp. ATCC# 9849) was evenly distributed by using a pipet over the soil tray in the chamber. Two weeks of continuous operation was carried out for the mold to sporulate and equilibrate with the environment before starting the test.

As Viability Control, few open potato dextrose agar plates were placed face up in the chamber at several places on the sample support rods. The plates were covered after 1 hr and left in incubator at 32.5±0°C for 3 days.

The test samples in triplicate were suspended vertically with the bottom of each sample approximately 3 inches above the surface of the inoculated soil and sufficient spacing between test units was created for free air movement.

The samples were incubated at 32.5±0°C and 95% to 98% relative humidity for 4 weeks. Panels were observed each week and rated from 0(Heavy growth) to 10 (No growth) scale.

TEST RESULTS: See Table and pictures

Table:

*: Average of three replicates.

Scoring: 0 means Heavy Growth, no resistance to fungus. 10 means highest resistance to fungus, no visible fungal growth

Lab #	Sample ID	Results				Conclusion
		First Week	Second week	Third Week	Fourth Week	
unpainted control panels		0*	0	0	0	Heavy growth- No resistance to mold
99755	Arcoplast Solid Glass/Resin Core Panel	10*	10	10	10	Mold totally Absent- No visible growth- Resistant to mold

CONCLUSION:

Products tested was effective in preventing fungal growth and was found to be resistant to fungi tested. All samples had ASTM D3273 rating of 10.



Tehseen Naqvi, M.S. Microbiology , M(ASCP). Study director

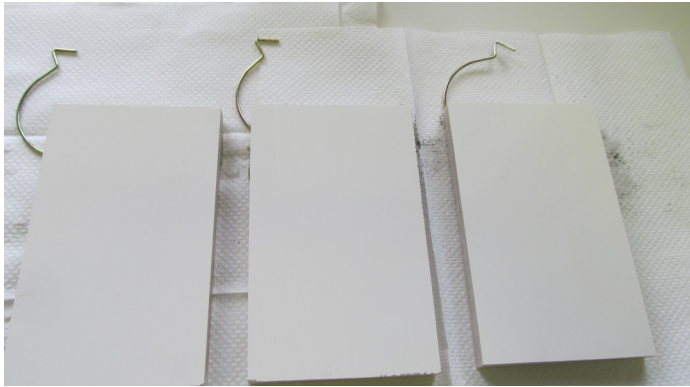


Figure 1: Sample Id Arcoplast Solid Glass/Resin Core Panel Lab# 99755, 3 replicas, No fungal growth observed © Accugen labs.



Figure 2: Unpainted Control, fungal growth observed © Accugen labs.

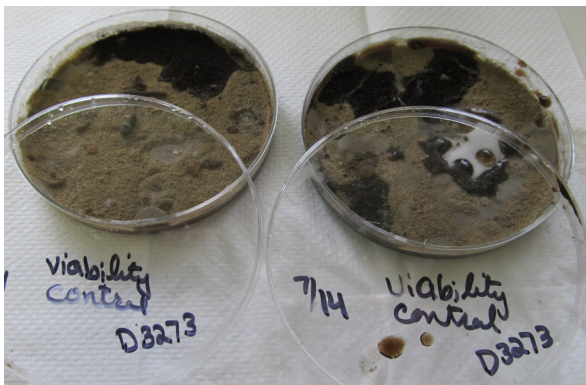


Figure 3: Fungal growth on Potato dextrose agar after exposing for 1 hr chamber air. © Accugen labs