


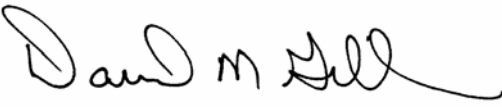


## ENGINEERING REPORT NO. 36395-1

### FUNGUS TEST

for

**SOUTHERN CROSS BUILDING PRODUCTS, LLC**  
**3461 HIGH RIDGE ROAD**  
**BOYTON BEACH, FL 33426**

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## REVISION HISTORY

Revision	Total Number of Pages	Date	Description
--	6	26 Dec 2007	Original

<b>PREPARED FOR:</b>  SOUTHERN CROSS BUILDING PRODUCTS, LLC 3461 HIGH RIDGE ROAD BOYTON BEACH, FL 33426  ATTN: Mr. Ron Chabis	<b>TEST DATES:</b> <b>Start:</b> 11/29/2007 <b>Completion:</b> 12/27/2007
	<b>ENVIRON TEST NO.:</b> 36395-1
	<b>PURCHASE ORDER NO.:</b> 112107
	<b>PURCHASE DATE:</b> 11/21/2007

## FUNGUS TEST

### 1.0 ABSTRACT

#### 1.1 Object

Subject twenty-four MGO Wallboard Samples to a Fungus Test in accordance with *ASTM D3273-94* as requested in Southern Cross Building Products, LLC purchase order 112107, dated November 21, 2007.

#### 1.2 Conclusions

Examination of the samples upon completion of the incubation period found no evidence of fungal growth. All samples had an *ASTM D3273* rating of 10.

### 2.0 UNIT(S) TESTED

**Table 1: Units Tested**

<b>MANUFACTURER:</b>	SOUTHERN CROSS BUILDING PRODUCTS, LLC
<b>DEVICE:</b>	Twenty-four (24) MGO Wallboard Samples
<b>MODEL/PART NO.:</b>	N/A
<b>SERIAL NO.:</b>	Numbered 1 through 24

*The results of this test apply only to the units identified in this Engineering Report by device identifier and model / part number, or serial number.*

### 3.0 TEST REQUESTED

Subject the test samples to a Fungus Resistance Test in accordance with *ASTM D3273-94*, titled "Standard Test Method: Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber."

The fungus used in the test shall be (1) *Aureobasidium pullulans*, (2) *Aspergillus niger* and (3) *Penicillium*. The test soil shall be greenhouse-grade potting soil containing 25% peat moss. The test soil shall be spread across the bottom of the test cabinet. The soil shall be inoculated with mold suspensions prepared using the three fungi. Allow 2 weeks of continuous operation for the mold to sporulate and equilibrate with the environment before starting the test. Viability of the mold growth can be checked by placing several agar plates in the cabinet. Mold growth should be medium-heavy to heavy covering the complete surface of the agar plate.

The test specimens shall be suspended vertically with the bottom of each specimen approximately 3 inches above the surface of the inoculated soil. There shall be sufficient spacing between test units to allow for free air movement. The samples shall be incubated at 90°F ±2°F and 95% to 98% relative humidity for 4 weeks. The test articles shall be inspected every week and mold growth recorded.

The samples shall be rated on a scale of 1 to 10 upon completion of the incubation period. A rating of 10 is the complete absence of mold growth and a rating of 1 is 100% coverage of the surface area with mold.

## 4.0 INSTRUMENTATION, PROCEDURE, AND RESULTS

### 4.1 Instrumentation

All instrumentation is calibrated regularly by instruments directly traceable to the National Institute of Standards and Technology, and in accordance with *MIL-I-45208A*, *ANSI/NCSL Z540-1-1994*, and *ISO/IEC 17025: 1999*.

**Table 2: Instrumentation List**

Equipment Number	Description	Manufacturer	Model Number	Last Calibration	Due Calibration	Range
200-071	Temperature Chart Recorder WB/DB	Honeywell	AR11ALS1064	5/25/2007	12/25/2007	0 to +200°F
200-147	Temperature Controller	Watlow	922	5/25/2007	5/25/2009	-328 to +1112°F
500-035	Temperature Chamber	Volrath	18900-S	N/A	N/A	-40 to +170°F
810-002	Microscope	Meiji	EMT-2	8/2/2007	8/2/2009	10X; 30X

### 4.2 Procedure

The test specimens were subjected to a Fungus Resistance Test in accordance with Section 3.0 of this report.

A high-density polyethylene tank with an offset shoulder at the top was used as the test box. The potting soil was prepared and inoculated in accordance with *ASTM D3273-94*. Viability of mold growth was confirmed using agar plates. The test samples were suspended in the test box 3 inches above the soil. The box was covered and placed in the incubation chamber operating at 90°F with a relative humidity of 96 percent.

The test specimens were removed from the chamber every 7 days and inspected for evidence of mold growth.

### 4.3 Results

The weekly examination of the samples found no evidence of fungal growth on any of the samples at any time during the incubation period. The samples had an *ASTM D3273* rating of 10.

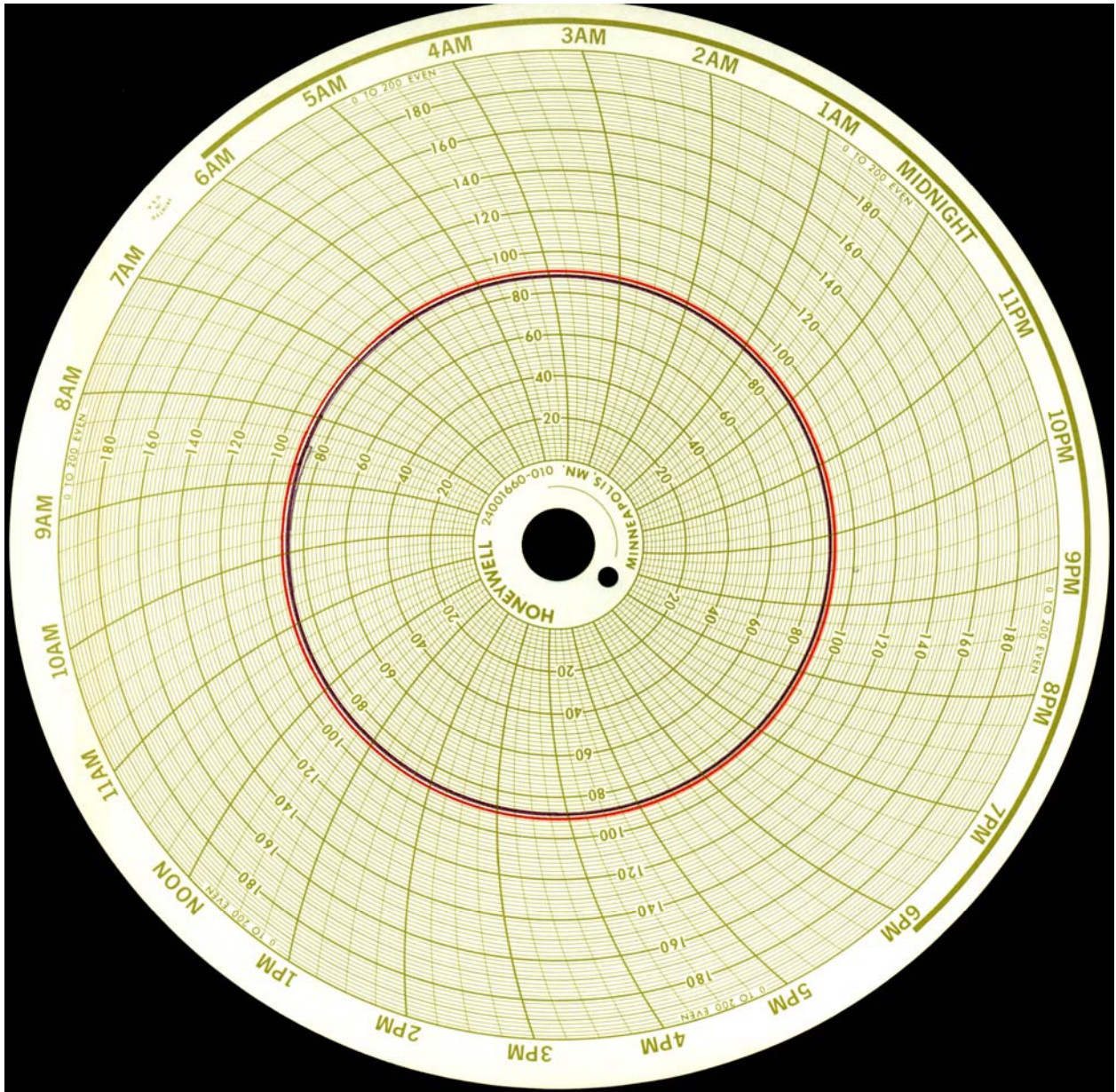


Figure 1: Wet bulb/dry bulb temperature chart (°F) showing the chamber conditions during the incubation period.