

ASTM D 3273 - 16

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

FINAL REPORT: R2019-###

Prepared for:
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Accredited Testing Provided by:



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TESTING CERT: #2832.01

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Objective:

To evaluate the mold resistance properties of one sample as demonstrated by the ASTM D3273 fungal resistance test.

Test Sample Identification:

1. Number 1

Test Procedure Summary:

The ASTM D3273 test chamber contains soil that was seeded with fungal spores and allowed to grow. The test samples were hung in the D3273 chamber with three pieces of the positive growth control to confirm validity of the fungal inoculum coming from the soil. Samples were examined weekly for fungal growth and defacement and rated according to visual defacement of fungal growth.

Test Variables

Test Organisms:	<i>Aspergillus niger</i>	ATCC 6275
	<i>Penicillium citrinum</i>	ATCC 9849
	<i>Aureobasidium pullulans</i>	ATCC 9348
Sample Description:	3" x 4" Wallboard	
Sample Preparation:	Test as received	
Number of Replicates per Sample:	Three	
Positive Growth Control:	Untreated wallboard	
Environmental Conditions:	32.5 ± 1°C; 95 ± 3% relative humidity	
Incubation Duration:	28 days	
Deviations from Standard Test Method:	None, testing performed per ASTM D3273 without deviation.	



Results:

After 4 weeks of incubation in the D3273 chamber, the results for the test pieces can be found in the data table below. These results pertain only to the samples tested.

The control pieces performed as expected, confirming the validity of the test.

Samples are rated according to degree of surface defacement. Visual defacement is determined with an unaided eye, using magnification only to confirm suspicious areas. The rating scale is as follows:

Rating	Definition
10	No Defacement
9	90% clear (1 - 10 % defaced)
8	80% clear (11 - 20% defaced)
7	70% clear (21 - 30% defaced)
6	60% clear (31 - 40% defaced)
5	50% clear (41 - 50% defaced)
4	40% clear (51 - 60% defaced)
3	30% clear (61 - 70% defaced)
2	20% clear (71 - 80% defaced)
1	10% clear (81 - 90% defaced)
0	0 % clear (91 - 100% defaced)

ASTM D3273 Rating

Sample Identification	Rep	Week 1 Front/Back	Week 2 Front/Back	Week 3 Front/Back	Week 4 Front/Back
Number 1	1	10/10	10/10	10/10	10/10
	2	10/10	10/10	10/10	10/10
	3	10/10	10/10	10/10	10/10

Controls and Conditions

MSL-1 ½" Untreated wallboard	9/9	7/7	3/3	1/0
MSL-2 ½" Untreated wallboard	9/9	7/7	4/3	1/1
MSL-3 ½" Untreated wallboard	9/9	7/7	4/3	1/1
Relative Humidity (95 ±3%)	95	94	95	95
Temperature °C (32.5 ± 1°C)	32.5	32.6	32.3	32.3