

Anti-Microbial Paint

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Tectum panels have long been known for their resistance to fungi, mold, and microbial growth. This property was reported nearly fifty years ago. The resistance is due to the composition of the panels. The inorganic binder with a high magnesium salt content reduce, or in most applications, totally prevent the growth of fungus, a leading cause of indoor air pollution in some buildings.

Many other similar building products, such as mineral fiber ceilings and drywall, require the application of special paints or coatings to increase their resistance to fungi. These products, unless specially treated, can contribute to poor indoor air quality.

Tectum panels resist fungal growth and the problems associated with this growth. Tectum panels have been tested for the growth of fungi. Laboratory report LB92-244.RAP* stated "After 10 weeks of exposure at 230 C and 70-75% R.A. no growth of fungi has been observed (magnification 8x) on the surface of the Tectum panels, both natural and coated with paint." Engineering Report No. 31106-1JJ and Engineering Report No. 31106-1KK detail Fungus Resistance Tests.

Sample Number	Mass Increase (%) after 10 Weeks 23°C/ 70 - 75% R.A.	Visual inspection (magnification 8x) On growth of fungi of the Tectum panels After 10 weeks exposition
A, natural	14.0	None
B, natural	12.1	None
C, white	11.2	None
D, white	9.9	None

Tectum Inc., in association with Sherwin Williams, will offer a painted product that has an anti-microbial agent added to the paint. This will be available for specific jobs as required by the architectural specifications.

* Source: Centrum Voor Onderzoek & Technisch Advies
Test Report Available on Request

“FUNGUS RESISTANCE TEST”
Performed by: Environ Laboratories LLC
Engineering Report No. 31106-1JJ

1.1 Object
Subject three (3) samples of Tectum Natural to a Fungus Resistance Test in accordance with ASTM D3273.

1.2 Conclusions
Post-exposure examination found minimal fungal growth on the front surface of the samples and moderate growth on the back surfaces. The three test units had an ASTM D3273 rating of 10, 9, 9 on the front surfaces with a 10 rating being the total absence of mold.

3.0 TEST REQUESTED
Subject the test samples to a Fungus Test in accordance with ASTM D 3273-94 "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 fungus. 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 and cover 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 free air movement. The samples shall be incubated at 90°F ±2°F and 95% to 98% relative humidity for 7 weeks. The test articles shall be inspected every week and mold growth recorded.

4.3 RESULTS
The final rating in the following table is in accordance with ASTM D3273-94. An ASTM rating of 10 is the total absence of mold growth. (For more information on mold growth on Tectum products or to request a copy of the test results, please contact Tectum Inc.)

Sample	% Fungal Growth on Front Face	Final ASTM Rating on Front Face
1	5%	10
2	10%	9
3	10%	9

“FUNGUS RESISTANCE TEST”
Performed by: Environ Laboratories LLC
Engineering Report No. 31106-1KK

1.1 Object

Subject three (3) samples of Tectum Painted White to a Fungus Resistance Test in accordance with ASTM D3273.

1.2 Conclusions

Post-exposure examination found minimal fungal growth on the front surface of the samples and medium growth on the back surfaces. The three test units had an ASTM D3273 rating of 9, 9, 9 on the front surfaces with a 10 rating being the total absence of mold.

3.0 TEST REQUESTED

See Page 3 (TEST REQUESTED).

4.3 RESULTS

The final rating in the following table is in accordance with ASTM D3273-94. An ASTM rating of 10 is the total absence of mold growth. (For more information on mold growth on Tectum products or to request a copy of the test results, please contact Tectum Inc.)

Sample	% Fungal Growth on Front Face	Final ASTM Rating on Front Face
1	10%	9
2	10%	9
3	10%	9