

SECTION 028500 - MOLD INHIBITOR PERFORMANCE SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This written copy of our protocol for mold prevention was created to clearly outline our policy to prevent mold amplification policies regarding mold prevention. Please note that this list of tasks in no way compensates for the common sense approach and tasks related to field observation. Each of these steps is provided to assist site supervisory personnel limit the introduction of water into structures during construction. The overall objective of this program is to prevent the conditions required for visible organic growth to develop.

1.2 PRE-CONSTRUCTION

- A. Contract documents and details will be reviewed to identify potential conditions that may allow for water infiltration to the building. Concerns will be communicated to the Owner.

1.3 SITE PREPARATION AND RAW MATERIALS MANAGEMENT

- A. In order to limit the amount of fungal growth introduced to on-site structures it is important to manage the materials supplied to the job site. The site superintendent will examine each hack of material delivered to the site. If considerable fungal growth is observed the materials will be returned to the supplier.
- B. Materials will be stored above the soil, no direct contact with the soil will be allowed. Special care is to be taken to store materials so as to prevent contact with standing water. Wood and other porous materials will be covered with polyethylene cover while stored outside. Materials stored on site will be managed daily to maintain proper storage condition anticipating weather. Every effort will be made to move from framing to roof decked and shingled in the most expedient manner. Coordinate demand and deliveries to minimize exposure to elements.
- C. As materials are transported from outdoor storage locations to building interiors, care will be made not to drag these materials in the soil or through ponded water.

1.4 DURING CONSTRUCTION OF BUILDINGS

- A. If water does enter interior space through normal construction operations, actively sweep, pump and remove water from the building structure. This should be a top down approach. As needed, fans will be used to direct air over the ponded interior water to facilitate evaporation. Special attention shall be made to hydro tests by plumbing and sprinkler subs. Systems should be drained outside the building when possible. Windows, if present, will be opened during this operation.
- B. Holes and penetrations in the building façade (i.e. storefront, awning locations, cupolas, etc) that cannot be installed with window and door operation shall be covered/sealed with temporary measures until the permanent features can be installed.
- C. As buildings are completed and windows installed, fans will be placed in open windows on either end of the building to blow out in an attempt to create laminar air flow in the building interior and negative air

pressure. The remainder of the windows will be closed at this point of construction, and will remain closed unless a water intrusion event emanating from interior plumbing transpires.

- D. Buildings under construction will be managed daily anticipating weather events and reasonably forecasted problems that may introduce water to the structure unnecessarily.

1.5 TREATMENT WITHIN THE BUILDING

- A. In the event that site preparation and materials management procedures do not completely curtail conditions that may allow for fungal growth, the Contractor will engage a Subcontractor that specializes in Mold Prevention and environmental remediation, to treat and mitigate the potential visible organic growth on the building materials. This vendor maintains a certified industrial hygienist (CIH) on-staff and a five million dollar insurance policy without mold exclusion. These procedures should take place anytime after the building has been dried in and prior to the installation of insulation. Related tasks are as follows:
 - B. A preliminary inspection of each unit will be conducted by trained staff members under the direct supervision of the staff CIH. This examination will include the use of a moisture meter.
 - C. Depending on the intensity of visible organic growth found, the following steps will be implemented:
 - D. Areas where Bio mass is identified will be treated with a cleaner, Serum 1000 (active ingredient-Hydrogen Peroxide Compound), or IAQ Pretreatment (active ingredient-hydrogen peroxide compound), prior to the application of fungal inhibitor. The area to be treated should be cleared of workman during application. This product will be spray applied to the affected areas. Work may resume immediately following the application.
 - E. Buildings where visible organic growth is identified will be treated with an inhibitor Mold-Ram (active ingredient, chlorothalonil), or daconil Ultrex (active ingredient chlorothalonil) combined with a fungicide Fungitrol 420S (active ingredient, carbamate). These products will be spray applied. The fungicide concentration will vary depending on the intensity of visible organic growth.
 1. Light Areas- 8 oz : 25 gal
 2. Medium Areas- 12 oz : 25 gal
 3. Heavy Areas- 16 oz : 25 gal
 - F. A microbial application will be applied to pressure treated wood and structural members that may have moisture greater than 14% or in areas where visible mold is observed. The antifungal treatment inhibitor will be applied to areas previously determined to present a high potential for future visual organic growth amplification. These areas include around windows, entry doors, base plates and possible moisture intrusion areas such as kitchens and baths.
 - G. Gypsum products found with visible organic growth will be removed if they can not be surgically cleaned.
 - H. Certification of completion of antifungal application will be provided upon completion for each building.

1.6 INDOOR AIR QUALITY TESTING

- A. Prior to receipt of CO, but after HVAC becomes operational; air sampling will be performed to determine relative concentrations of airborne fungal spores. Air sampling will be performed by an independent third party contractor, Environmental remediation contractor, and will be conducted in a statistically valid random protocol as described by the American Board of Industrial Hygiene. For the apartment projects

air testing will consist of collecting one air sample in approximately 20 percent of the units and comparing the results of air samples to the outdoor air.

- B. Comparative Data Analysis (CDA) will be made by a board certified industrial hygienist to determine the potential for adverse health effects determined to be present in indoor air. This final report will be sealed by a Diplomate of the American Board of Industrial Hygiene. Certified, signed documented indoor air quality results can be provided as evidence in legal disputes.
- C. Copies of this final document can be provided to management personnel.

1.7 VISIBLE ORGANIC GROWTH FOUND IN THE AFTER DRYWALL INSTALLATION

- A. In the event organic growth is identified after the installation of drywall the following procedures will be followed:
- B. Materials such as drywall, applied wood trim, carpet and pad, and insulation will be removed. Stud cavities within impacted area will be exposed and ventilated until moisture levels return to normal. Remaining visible organic growth will be treated with one of the methods described in this document as appropriate.

1.8 MINOR ORGANIC GROWTH CLEAN UP

- A. In instances where visible organic growth is identified and is limited and minor in nature, the areas may be cleaned with Microban Disinfectant Spray Plus (active ingredients, Phenylphenol and Disobutylphenoxyethoxy ethyl dimethyl benzyl ammonium chloride monohydrate). Solution should be sprayed on, scrubbed and wiped down. See attached product label and MSDS sheets for additional information.

1.9 RECORD KEEPING

- A. In addition to the certifications provided by Environmental Contractor shall maintain a log on site identifying where mold was found in each unit and common area by floor and what was done to remediate. The log will include a unit layout and/or description identifying the areas where visible organic growth was identified as well as areas where moisture readings above 14% were identified, document random moisture content samples from delivery of materials through close-in, location (building and unit #), date of inspection, date of treatment, and a copy of notification to Owner (email is acceptable). The framing superintendent will be responsible for maintaining the log. The log will be made available in the construction trailer on site for periodic reviews.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 028500

