PERMA-CHINK® SYSTEMS, INC.

YOUR WOOD CARE RESOURCE

Technical Tip

Preventing Mold Growth

Mold and mildew (a type of mold) are colonies of living organisms, classified under the fungi kingdom, that can grow on the surface of many materials including wood. Their color may range from white to black with just about every color in between. If the discoloration is green, it is most probably algae, a plant, since mold and mildew do not contain green chlorophyll. Like most living organism's, molds require air, water and a food source for survival. Bare wood is quite susceptible to mold growth since the porous surface provides numerous places for spores to germinate and where many of the wood's nutrients are available as food. This is especially true for newly harvested wood that still contains a high sugar content. In addition, bare wood absorbs water, thus supplying the moisture these organisms require. The removal of mold is essential before applying any LIFELINE™ finish to obtain its optimal properties.

Although it is fairly easy to remove mold from seasoned bare wood surfaces (Wood ReNew does an excellent job), preventing mold growth on green logs in particular can be somewhat of a challenge. Thanks to the internet, one popular misconception is that borate treatments will prevent the growth of surface molds on wood. This is not true. Although the presence of borates will inhibit the growth of some types of surface mold there are other types that thrive on borate treated wood. Borates are quite effective against wood-decay fungi but surface mold is very different from wood-decay fungi, and it takes other methods of control to prevent their growth.

When it comes to preventing the development of mold on wood, the best and most effective approach is to provide a dry environment. Mold cannot survive in dry conditions so if the logs are stored under cover with lots of air flow around them, chances are that mold will not grow on them. But as we all know there are occasions when ideal storage conditions may not be practical so in those cases how can the formation of mold be prevented. There are some chemical treatments that can be applied to bare wood that will kill existing mold colonies and prevent the growth of mold for several months. One of the commonly used products is didecyldimethylammonium chloride, commonly referred to as DDAC. It works well and several years ago, PCS sold a product containing DDAC named Britewood XL. However, the one downside of

DDAC is that it is quite toxic and corrosive to skin.The US EPA signal word for products containing DDAC is a well-deserved **DANGER,** and it may not be available in all areas.

Another chemical used for killing and preventing mold growth is chlorothalonil. Chlorothalonil is commonly used in agriculture and horticulture as a fungicide. Chlorothalonil may also be used on wood to prevent mold growth and contains a **WARNING** label.

Although there are several other products available for controlling mold, the last one we will cover are natural oils (Lemongrass and Geranium), the active ingredients in our stain additive Mildew-X. This product was designed to fall under the US EPA guidelines of a minimum risk pesticide (40 CFR 152.25(f)). It works to prevent mildew and fungal growth on surfaces naturally. It is safe, powerful and easy to use.

All our exterior stains and topcoats contain dry film preservatives that help prevent the growth of mold on the surface of the finish. However, occasionally shaded, warm, moist environments can create conditions so conducive to mold growth that they can overcome the preservative in the finish. One way to handle this type of situation is to thoroughly clean the walls with Log Wash and then apply a coat of Advance Clear Topcoat mixed with a Mildew-X additive. Just be aware that the addition of Mildew-X will diminish the reflectivity or gloss of Advance Gloss.

A final thought about maintenance of exterior finishes. An occasional wash with Log Wash will help keep the surface clean and mold free. If needed, a maintenance coat of LIFELINE Advance will renew the water repellants, UV inhibitors and the mildewcides. Cleaning and maintaining your exterior finish will protect the wood and maintain the appearance of your home, including keeping it free of surface mold.

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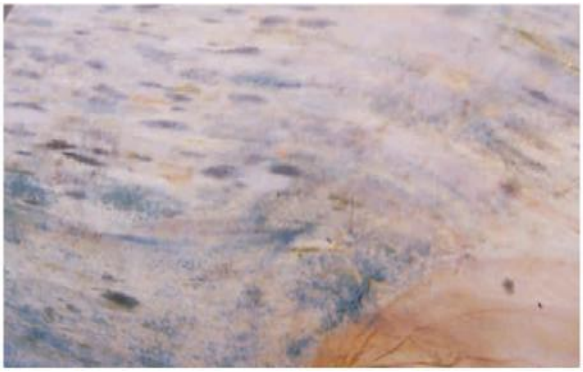

Example of Mold Growth on Bare Wood