

beautiful, quality, recommended,
creative, tasteful, the tough,
excellent, resistant

Swedish edition

*Glitsa American's newsletter
for flooring professionals*

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By Randy Wirtz, Technical Representative

Maple floors present unique challenges for the hardwood-flooring contractor unlike most wood species offered in today's flooring market. What makes maple a difficult wood to work with when sanding is its hardness, dense grain structure, and light colored appearance. The grain of maple is hard, but its structure has a range of density that responds to abrasion differently. Consequently, a rippled appearance is common, especially when sanded to a fine degree. Abrasion marks from the big machine, edger or the buffer, if too coarse, can be a problem. This is due in part to the hardness of the wood and the light colored appearance. These distinctive characteristics combine to create a medium that is tricky to work with.

Continue on page 2



Please join us in Palm Springs at NWFA's 16th Annual Convention.

**One lucky entry will be drawn to
win the custom Harley Davidson
Softail Night Train.**

**The drawing will take place in
the Glitsa booth, number 618
Friday, April 27 at 5:00 p.m.**

**Be there and maybe you will be
riding off into the sunset.**



More on Maple, continued...

The hardwood-flooring contractor today has a tough task ahead of him. It is not uncommon to encounter a homeowner who has a very high, if not flat out unobtainable, expectation of how their floor should look. This trend in the marketplace has pushed the contractor to achieve the “optimal” appearing floor. A very common practice is to sand the floor to a fine degree, and apply numerous, thick coats of finish. Unfortunately this approach does not work well, especially with maple.

The flooring contractor should approach sanding maple with a different mindset than he does with oak or other more forgiving woods. Very possibly, his sanding regimen may need to be altered to get favorable results. A balanced approach to sanding is necessary to achieve a wider scope of acceptability. Too rough or too smooth can be a problem.

When sanding make sure that the rough cut removes all over-wood so that the subsequent finer grits can do their job correctly. Proper abrasive choices are also very important, skipping no more than one grit in sequence. A final cut of 100 and no finer than 120 is recommended. Follow by screening the floor with the same grit that you finish cut with.

Remember, the finer you sand, the more prone the floor will be to scrutiny. If your routine is to sand very fine, consider ramping down your final grit selection to no finer than 120 grit.

A closing comment about finishing

Equally important to this discussion is the finish application process. Most definitely, keep coats to a minimum, and on the thin side of the specific manufacturer’s recommendations.

With waterborne coatings, three, thin, uniform coats will bring about the best appearance. Applying more than three, thin coats is asking for trouble. The more finish, the more reflective the floor becomes.

Swedish Finishes likewise look best when thin, uniform coats are applied. Also keep coats to a minimum, applying no more than three coats. A semi-gloss or satin topcoat will have a wider range of acceptable results as well. +

“Coming to a distributor near you!”

INTRODUCING

INFINITY **SnapDry**

Quick Dry Waterbase Sealer



- Single Component
- Fast Drying
- Good Open Time
- Powders Great
- Great Clarity
- Non-Yellowing

Glitsa products have always given the contractor a competitive edge. That's just what Snap Dry, quick drying waterbase sealer, was designed to do.

Snap Dry does just what its name says. It dries in 90 minutes with minimal grain raise and powders up like a dream, making your job easier and faster.

Try Snap Dry and Infinity Waterbase for the best looking waterbase job and watch your business grow.



The Facts About Glitsa

What is formaldehyde and why is it in Swedish finish? Or, how dangerous is Rhubarb Pie?

By Duane Bartel, President, Glitsa American – Part Two of Four

From time to time, I will receive a phone call from a homeowner concerned about the fact that there is a small amount of formaldehyde in Glitsa's Swedish finishes. She is worried about the health risk to her family. I am always pleased to address this question because people should be concerned about their health and this is an easy matter to put them at ease about.

Let me start by explaining what formaldehyde is, just how "toxic" it is, why it is in the Swedish finishes and why it shouldn't be a risk factor for homeowners.

Formaldehyde is a member of the "aldehyde" family of compounds. It is a very common organic compound made up of carbon, oxygen and hydrogen. Although it can be man-made, people should be aware that it occurs routinely in nature as well. In fact, most of the formaldehyde that exists in the world is being manufactured daily by Mother Nature herself. This is because formaldehyde is a natural by-product of common oxidation processes such as fermentation and combustion. Mother Nature also has engineered many living things to produce their own formaldehyde to improve their odds of survival. A case in point is nuts and fruits. One of formaldehyde's great strengths is as a very effective preservative. For this reason, many nuts and fruits that contain seeds, apples for instance, manufacture their own free formaldehyde to preserve the seeds.

Notice that I used the term "free" formaldehyde. This is an important distinction, which I will refer to later.

Formaldehyde has unique chemical properties that make it very useful in a wide variety of products. It occurs naturally in wine and beer as a by-product of fermentation. Likewise, as a by-product of incomplete combustion of cellulose products (wood), it is produced in smoke and permeates into barbequed



foods, campfire toasted goodies, smoked meats and smoked nuts as well as dispersing into the atmosphere.

If you smoke cigarettes, cigars, a pipe or ever breathe second-hand smoke you are breathing a measurable amount of formaldehyde. If you chew tobacco, you may be consuming it. Did you know that the air you breathe, even outdoors, normally contains a small amount of background formaldehyde? It is used everywhere throughout buildings, vehicles, and a large number of products we come in contact with every day. It is even in our drinking water.

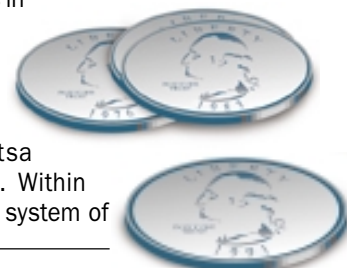
Other common products that may contain formaldehyde, depending on their individual formulations, include the following: toothpaste, various types of makeup, nail polish, face and body creams, foods containing preservatives, disinfectants, anti-bacterial additives, and other types of food additives. It is used by hospitals to sterilize surgical instruments. It is responsible for the "permanent" in permanent press clothing, and is responsible for the "strength" in wet-strength paper towels. It is used in products throughout our houses such as plastics, paints, sheetrock primers, plywood, particle and fiber board, glues, wallpaper, in furniture construction, fabrics and coatings, draperies, packaging materials and insulation. It is used throughout your car and other vehicles in the upholstery, plastics, paints, adhesives and coatings.

But why would we use this "nasty stuff" in our floor products? Formaldehyde is part of the resin system, which contributes to the unique and outstanding characteristics of our Swedish finishes in regards to their toughness and longwearing characteristics. Formaldehyde's reputed "nastiness" depends on if we are talking about "free" formaldehyde or "reacted" formaldehyde and how much of an exposure level is present. Formaldehyde is considered "toxic" when it is in a liquid or vapor state. In these forms it could be potentially inhaled or consumed and act as a "toxin" depending on how concentrated the

exposure is. For the contractor, this exposure should be extremely low because he should be wearing a NIOSH/MSHA approved respirator with the proper filter cartridges during application. In the case of the homeowner, it should be extremely low because the contractor should have ventilated the house well before occupancy resumes. There is not much free formaldehyde to begin with, and upon application, it evaporates easily and rapidly. Furthermore, when considered relative to the rest of the house, the background formaldehyde present from all the other typical uses probably exceeds the amount released from Glitsa by many orders of magnitude. This is the case because many products, and the way they are engineered or applied, do not lend themselves to releasing the formaldehyde easily and rapidly. Dense products like fiberboard, for example, tend to release formaldehyde over long periods of time instead of very rapidly as our products do.

Once the Swedish finish is dry, basically the only remaining formaldehyde is solid or "reacted" in the resin. At this point, the coating on the floor is generally stable and should not emit any significant amount of formaldehyde once it has cured more than a week or two. In fact, a rule of thumb in this regard is that if you can no longer smell solvents, there is likely to be only trace amounts (very, very little) of remaining free formaldehyde. The reason for this is formaldehyde is very similar to many solvents in the way that it evaporates. In fact, it has a lower molecular weight and higher vapor pressure than most solvents making it one of the fastest evaporating components in Glitsa products.

I am sometimes asked how much formaldehyde is in Glitsa Swedish finishes. Within Glitsa's Gold Seal system of



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Swedish finishes, Glitsa Sealer has the highest free formaldehyde content of 0.16%, which equates to less than one-sixth of one percent. This is evenly dispersed through the product. To illustrate this proportion, let's imagine the formaldehyde concentrated to one point in a gallon can. A gallon contains 231 cubic inches of product. A gallon of Glitsa Sealer contains a liquid volume of formaldehyde of about 0.43 cubic inches. This volume would be roughly equivalent to a stack of quarters 11 high. Continuing this comparison, the volume of a gallon of Glitsa Sealer equates to a stack of approximately 5,775 quarters, which would stand about 29 feet high. To complete this comparison, only 11 of those 5,775 quarters would represent formaldehyde in the product. Put another way, picture two stacks of quarters side by side, one being 11 quarters high (representing formaldehyde) and the other 5,764 high (representing the remaining product in a gallon of Glitsa Sealer). This illustrates how small an amount of the product is free formaldehyde.

Let's put this in perspective relative to the typical house. A two-coat Glitsa system applied to a 300 square foot area releases a total of about three-one-hundredths of a pound of free formaldehyde during cure. With proper ventilation and adequate dry time, this free formaldehyde rapidly evaporates into the air and is forced outdoors. One independent study of a similar product shows that the formaldehyde level one week after application, employing good ventilation, was about one-twentieth of the level during application. In fact, at that point in the study, the formaldehyde exposure level fell to the lower limit of the range of detection.

The small amount of remaining formaldehyde is chemically locked up (reacted) in the resin that makes up the protective finish and will not be released under normal conditions. Any trace (tiny) amount that might be released over time is probably far less than that released by other existing products in the house that contain formaldehyde. In comparison, these other

sources within the typical house may contain up to several hundred of pounds of reacted formaldehyde.

The homeowner needs to take a look at the bigger picture when judging one product. If the contractor does his job right, the homeowner should not be exposed to any harmful amount of formaldehyde from a Glitsa product. If the contractor uses a NIOSH/MSHA approved respirator with the proper filter cartridges and maintains it properly, he likewise should never be exposed to a formaldehyde related health risk.

OSHA requires that a formaldehyde-specific respirator cartridge be used when exposure to formaldehyde exceeds 0.75 parts per million. All Glitsa products fall well below those limits even when evaporation rates are at peak levels during drying.

Finally, homeowners sometimes ask, "how toxic is formaldehyde?"

It is good for people to have concerns about the products they use. We all have some knowledge that some things are not good for us. But this limited knowledge often creates misconceptions about what the "real" threats are that we face.

There is no denying that formaldehyde is toxic. But then, there is hardly anything in our world that is not. The FDA has assigned toxicity ratings to a long list of chemical compounds. On a scale of one to six, formaldehyde, in its pure, concentrated, free form (a liquid or a vapor), has a rating of five. You might be surprised to know that other common products or natural things in our daily lives have exactly the same toxicity rating. These include, among others, some types of smoking tobacco, the nitrous oxide you yearn for in the dentist office, and potatoes, which are a member of the nightshade family. Insulin, which our bodies produce and is so vital for life, also has a toxicity rating of five, just like formaldehyde.

But if you really want to live dangerously, I suggest you sit down at your local eatery and order up a piece of rhubarb pie. Rhubarb has the highest possible toxicity rating of six, right up there with hemlock, heroin, carbon tetrachloride and cyanide.


I happen to like rhubarb pie. But I limit myself to one piece when I succumb to that urge. I also love Glitsa products (using them, not eating them) but I carefully observe all the instructions regarding safety, application and other recommended procedures including thorough ventilation.

Most things we come into contact with are potentially "toxic" if prepared or used incorrectly, or in improper amounts. There is no need for that to happen as long as we all take proper precautions, follow instructions and make safety a fundamental part of our work habits and lifestyle.

Wear a respirator with proper filter cartridges. Ventilate aggressively and thoroughly. And, once in a while treat yourself to a piece of rhubarb pie (but just one piece).

Enjoy. +

- References:**
- National Paint and Coatings Association, Inc.
 - Deadly Doses by S. Stevens and A. Klarnar
 - The Dose Makes the Poison by M. Ottoboni
 - The American Cancer Society
 - The Merck Guide
 - Perry's Chemical Engineers Handbook
 - OSHA



**5,775 quarters =
one gallon of
Glitsa Sealer**



**11 quarters =
the amount of formaldehyde
in a gallon of Glitsa Sealer**

CONTRACTOR SPOTLIGHT

Contractor Spotlight Dave's Floor Company Inc.

Dave says he uses Glitsa because, "the product, by far, looks the best and seems to have tremendous wear resistance. Once a contractor is used to the product, coating is actually easier and more forgiving."

Dave Noga, Dave's Floor Company Inc., Island Lake, Illinois has been in business and using Glitsa products for over sixteen years. His business is 98% residential and 2% commercial, installing and finishing floors in the Chicago area. He has done display floors for Sears' Home Shows as well as floors in president and CEO offices of a world-wide Fortune 500 company.

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Dave rolls the Swedish finish using a 3/8" nap roller sleeve and cuts in with a brush. Occasionally he will add Retarder to extend the open time. Dave's preferred finish system is Glitsa Sealer and Gold Seal because of its beauty and wear resistance but also notes that, "Glitsa is one of the most repairable finishes in existence."

His tip to other contractors: for the best looking Maple floor, he stains the maple with Glitsa's Gold Seal Neutral Stain, wiping off as he goes. When the floor is

completely stained, he goes over it with a fine steel wool using a buffer. This is sometimes known as burnishing. Once the stain has fully dried, he proceeds to put his seal and top coat down at the recommended coverage rate. Using this procedure allows Dave to seal the wood surface without a thick seal coat. Thus, allowing him to use one coat of Glitsa Sealer and one coat of Gold Seal over the more unforgiving maple without a hungry look.

Dave has noticed the trends in his area to be moving toward lighter colored floors. †

Dave Noga, Dave's Floor Company Inc.



Who Turned Out the (Pilot) Lights?

Part of the safety measures that are fundamental to the use of Glitsa Swedish finishes is the need to extinguish gas pilot lights prior to coating floors. Here are a few easy steps to ensure that no flame source will be overlooked.

First, to avoid overlooking a flame source, ask the homeowner for a list of all gas appliances in the house and which appliances use a pilot light. If there is any uncertainty on either the part of the homeowner or the contractor, the fail-safe approach is to turn off the main gas supply to the house. This valve is usually in plain sight along the perimeter of the house. If you cannot readily locate

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the valve, call the gas utility company. Most fire departments require that gas utility companies maintain a record of the location of the gas main valve for each house. Attach a note to the valve indicating why it is off and how long it must remain off.

Not all gas appliances use pilot lights. Some appliances use electronic igniters. If the appliance clearly does not use a pilot light, it is best to not only turn the appliance off but also to turn off the circuit breaker or unplug it (if

applicable). If you do unplug an appliance or turn off its breaker, it is advisable to attach a note to the cord or the breaker indicating why the power must remain off and for how long. If there is a gas valve at the appliance, turn it off as well. If you are ever in doubt, call the gas utility company. They are usually eager to assist you. Or you may choose to call the appliance manufacturer. The easiest thing to do is turn off the main gas value to the house if there is any doubt.

Once the vapors have subsided to a safe level, which depends entirely on how well the house has been ventilated after coating, the pilot lights will need to be re-lit. Many appliances include instructions inside an access door or panel. Some manufacturers may post a customer service phone number in the same area. If neither is available, call the local gas utility company. They may even be willing to send a technician out to the jobsite at no charge.

One important safety tip to remember is natural gas is "perfumed" to smell like rotten eggs. If you experience more than a hint of this smell during re-start procedures, be on guard. Once again, when in doubt, call the gas utility company.

Turning off and restarting gas appliances is usually easy and can be accomplished safely and quickly. The contractor just needs to take all ignition sources into account and be careful. Above all, when in doubt, call the gas utility. They are eager to help. ♦

We want to hear from you!



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