INTHE INCOMMERCIAL INFLOORING INREPORT

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The Chattanooga Mud Run a 5K Mud Run raising funds for Habitat for Humanity of Greater Chattanooga was held this past weekend, August 16, 2014 for its 5th year. This 5k run is a military-style obstacle course race with most of the obstacles surrounded by (or consisting entirely of) mud. Lew and his team were appropriately named, *Fuzzy Side Up*. We were proud to do our part for Habitat for Humanity. HERE IS THE BEFORE AND AFTER



THE FLOOR COVERING ABATEMENT DILEMMA

As if there aren't enough substrate issues that can compromise the installation of floor covering materials we face one situation that is sure to give the flooring contractor, general contractor and building owner fits and that's the use of abatement chemistry used during the removal and containment of asbestos

containing flooring materials and adhesives. Those flooring materials would be flooring products, including sheet vinyl, vinyl asbestos or asphalt floor tiles and any with paper-like backing, mastic, adhesive or glue that may contain asbestos. In the past, asbestos fibers were added during the production of flooring materials to strengthen the flooring and to increase its durability. The flooring product primarily involved is the old 9 x 9 asbestos containing tiles and cut back adhesives used to install them found in old buildings whose flooring has been in place for decades. The problems caused by chemicals used to remove and abate asbestos flooring have been increasing and you'll run into them when old buildings are being renovated or retrofit.



Adhesive degraded and cut back adhesive activated from abated substrate under carpet

Heat, water, weathering or aging can weaken flooring to the point where it is considered friable. Friable flooring includes any material containing more than 1 percent asbestos that can be crumbled, pulverized or reduced to powder with hand pressure. This includes previously nonfriable flooring material which has been damaged to the extent that it may be crumbled, pulverized or reduced to powder by hand pressure. Flooring can also be made friable during its removal. Friable materials can release asbestos fibers into the air. Once in the air, asbestos fibers present a health hazard to people who inhale those fibers.

One thing to remember in all of this is that if the asbestos flooring does not become friable, that is broken into small pieces, pulverized or turned into dust; it does not pose a great hazard. Flooring that contains asbestos, when intact and in good condition, is generally considered nonfriable and is not hazardous. However, any mechanical means of removal such as sanding, grinding, bead blasting or machine scraping will make flooring friable. This is a slippery slope because you can use hand tools to remove the flooring without having to implement containment but if the floor starts to break apart then it must be contained. Removal without breaking the flooring up is a near impossible task which means you have to abate. This is a no win situation. The cut back adhesive, depending on the condition of the substrate and moisture within it, can be contained or removed without creating a health hazard. Having said that, the word asbestos sends people into a tizzy. The first reaction is that the asbestos has to go and we have to spend a ton of money to accomplish that by whatever means necessary. Enter the asbestos abatement firms. They will remove the asbestos flooring and then use a solvent that's either an ethyl ether or citrus based material with a surfactant. The ethyl ether can act as both the solvent and surfactant depending on the product used. Once this chemistry enters the matrix of the concrete it is near impossible to remove and as long as it remains it presents a compromising condition to the flooring installation, both to the adhesive and the flooring material.



Shrunken LV Plank Over Abated Substrate

Cupped LV Plank Over Abated Substrate



THE COMMERCIAL FLOORING REPORT Lew Migliore - President and Owner LGM Enterprises, LLC P-(706) 370-5888- F-(706) 270-0482 - Email: Igmtcs@optilink.us Click this link for archives of CFR articles LGMANDASSOCIATES.COM



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Pay Layout by: Anita Drennon I wrote about this subject extensively in the January 2011 issue of CFR. Almost every flooring manufacturer warns of using a solvent to remove adhesive and flooring material and none will warrant their products or installation over it. The same would be true for adhesive and patch manufacturers. <u>http://www.lgmandassociates.com/wp-content/uploads/2011-01-CFR-Volume-34-The-Use-of-Solvent-to-Remove-Old-Flooring-Adhesive.pdf</u>

What instigated the return to this subject was a call from a flooring contractor asking for help on a large project he's being asked to install thousands of feet of luxury vinyl plank tile. The previous installation of 9 x 9 asbestos tile flooring has been abated using a solvent/surfactant chemical agent. In addition the substrate, which is on grade and old, has high moisture vapor emission measured at 12 pounds and a relative humidity measured at 97%, basically the concrete slab is a soaking sponge. The moisture issue will exacerbate the solvent/surfactant issue and will prevent any flooring from being glued to the substrate with anything. The abatement chemical has housed itself in the matrix of the concrete never to be removed. The moisture in the slab will continue to migrate from it and in the process bring the solvent with it. The first thing to be affected will be the adhesive and subsequently the vinyl will be affected. The solvent will distort the vinyl flooring material causing it to curl, lift or otherwise change in form and possibly dimension. So not only will the installation not work but the flooring material itself will be adversely affected. The moisture will keep driving the abatement chemicals to the surface of the concrete where it will compromise anything on it. To say this is a catastrophe is an understatement.



Cut back pustules and migration from concrete through leveling agent

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How about if we don't glue the flooring material to the substrate and use a mechanical means of installation? As long as the flooring material is on the substrate there is a potential for it to be affected. Bottom line, when the slab has moisture and they all do to varying degrees and a chemical abatement process has been used, the slab may never be suitable for the installation of flooring material. A failure of an installation over an abated slab is not the fault of the flooring contractor or flooring material manufacturer unless they know the condition exists and choose to install anyway. A general contractor, architect or building owner who knowingly insists the installation take place under these circumstances is to blame for any failure. Even though the law may argue that installing over a slab in this condition and subjected to the chemicals that can compromise the flooring and the installation, is still the fault of the flooring contractor who did the installation, the party that forced the installation can still be held liable. Acceptance generally establishes responsibility but duress from the party holding the gun to the flooring contractors head can change the argument. That said, if a condition is known to exist that can cause the installation to fail a protest letter should be issued by the flooring contractor. The best thing to do is to walk away from this situation. The risk far outweighs the profit you think you'll make.

Can anything be done? How about a sleeper system or a sealer or a membrane placed between the substrate and the flooring material. The chemicals and moisture will come up in vapor form and vapors will penetrate most anything. Two things near impossible to stop are water and air and when they transport with them other chemicals that don't even touch the flooring you can still have problems. All you need is one void the vapors or liquid can pass through and they'll fill the rest of the space themselves. And you should be afraid this will happen. Sometimes circumstances dictate that you just can't install flooring materials or coatings over a slab and you just have to accept that.

Funny thing about chemistry and physics; words from a sales pitch or marketing hype don't change them. It's part of nature and nature isn't influenced by words. So if you're faced with a situation





LGM is Supporting a Local Artist. Lisa Q. Caldwell

This piece is *It Takes Two to Tangle* - 40" w x 40" h x 2 3/8" d Mixed Media Painting - Go to Page 6 for more about the artist. Click the photo to see more at lisaqcaldwellfineart.com The Commercial Flooring Report

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that you intuitively fear, trust your gut and don't believe when someone tells you, "its ok go ahead." The train will likely be bearing down on you and by the time you realize it, it will be too late. Go online to read the previous issue about this subject – January 2011. <u>http://www.lgmandassociates.com/wp-content/uploads/2011-01-CFR-Volume-34-The-Use-of-Solvent-to-Remove-Old-Flooring-Adhesive.pdf</u>

If you have questions, need help, guidance, advice or a shoulder to cry on, call us. We do have the answers.

Schonox Worst Subfloor in America Contest at: http://hpsubfloors.com/worstsubfloor/

I, along with Jim Walker of CFI and John McGrath of INSTALL, will be judging the worst subfloor in North America, look at the link (or ad) for details on the contest.



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Artist Statement - The process for my canvas paintings begins with a smooth painted background. The main focus of the piece has areas that are slightly built up with the use of fabric, glass, and acrylic paints and mediums which gives a complexity to the surface and allows the illusion of stained glass. The foreground of the piece has a 3D tactile quality and visual effect. Nature sometimes supplies the remaining layer to my paintings. When the life cycle ends for an insect, a snake, a plant and or other various objects I collect and repurpose them into my artwork. They may be found in the driveway, by the light of a business or even on the grill of a car. My husband and friends are always collecting them for me. Be sure and look close at the paintings and see if there may be a treasure that is getting a second life as a piece of art.

Red Bird - 36" w x 18" h x 3" d *Mixed Media Painting* – Call for pricing



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