

Installation Expertise with Tim McAdoo

It's Not Rocket Science, It's Only Flooring

Growing up as a young boy, my Dad always said it is fine to make mistakes, but don't keep making the same mistakes over and over. I have never claimed to be the smartest person, but I have tried to use his philosophy and have learned that when something repeatedly does not work it's time to move on.

For this reason, I really feel bad for the Building General Contractors in both the Commercial and Residential new construction markets, as they continue to make the same mistakes from project to project and fail to rationalize what went wrong. In fact, it seems as though they take a step or two backwards on the next project. They forget all the issues they just went through on the last project and look at the flooring contractor like they can't believe you can't deal with these issues.

Dear Mr. General Contractor,

You have beaten my profit margins to almost nothing. At the Job Start meetings you drill me about following the flooring manufacturer's requirements and yet you continually give me working conditions outside any flooring manufacturer's guidelines and expect perfection. You want to back charge me for things I have no control over. Also, by the time I can finally get onto the job, your project management schedule isn't worth the paper it's printed on because it is behind schedule and now I need to make up for lost time with every other trade working above me.

Please let me help you resolve this, so we don't have to keep on repeating the same scenario.

Sincerely,

The Flooring Contractor

Let's take a look as to what the Flooring Manufacturers require for Jobsite Conditions and then what the General Contractor continues to give us.

Flooring Manufacturers; Areas to receive resilient flooring shall be clean, fully enclosed, weather tight with the permanent HVAC in operation. Resilient flooring should only be installed in temperature-controlled environments. It is required that the permanent HVAC system be in operation before the installation of resilient flooring. Temporary HVAC systems are acceptable. During the service life of the floor, the temperature should never rise above 100°F nor fall below 55°F. **The performance of the flooring material and adhesives can be adversely affected outside this temperature range.**

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General Contractor; Plywood doors and plastic for windows do absolutely nothing for maintaining conditions or keeping the weather elements out. They let the cold weather in during winter and keep the hot weather and humidity in during the summer. Having no permanent HVAC in operation does not allow the interior environment of the building to dry out. If the air is saturated with moisture, there is nowhere for the subfloor moisture to go. Also, when flooring Manufacturers say Temporary HVAC systems are acceptable, this means when they are used in an area, they should remain in that area until the permanent HVAC is in operation. They should not be moved from floor to floor as this can affect the environmental conditions greatly, which affects the flooring. Remember, flooring expands when warm and contracts when cold. Shocking the flooring with temperature will cause installation issues.

Flooring Manufacturers; the entire area shall be well lit, so the installer can properly prepare the substrate and install the floor.



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General Contractor; you are expecting a perfectly installed flooring system. How can I properly prepare the subfloor and cut and treat my seams the way they are required when I cannot see what I am doing. Not only is the lighting poor, there is only 1 live receptacle on each floor of the building and every trade is using it. How am I supposed to properly heat weld my seams when every trade is drawing off the same electric current?

Flooring Manufacturers; the surface of the subfloor must be **dry, clean, smooth and structurally sound**. It must also be free of depressions, scale or foreign deposits of any kind. The surface shall be free of dust, solvents, varnish, paint, wax, oil, grease, residual adhesive, adhesive removers and other foreign materials that might affect the adhesion of resilient flooring to the concrete or cause a discoloration of the flooring from below.



Pitted Concrete



Paint Overspray

General Contractor; concrete under perfect drying conditions, concrete takes 1 month of dry time for every inch of concrete. Technically, your 4" thick slab is not ready for flooring in 60 days. Many factors affect the drying out of the concrete which I addressed above with the permanent HVAC. Again, if you dry out the environment, this will allow the concrete to dry as well. Per the ASTM F2170 Specification Determining Relative Humidity in Concrete Floor Slabs it states that Concrete floor slabs shall be at service temperature and the occupied air space above the floor slab shall be at **service temperature** and **service relative humidity** for at least 48 hours before making relative humidity measurements in the concrete slab. I don't believe for one minute that the people working in this building when it's finally occupied will be working at the conditions you give me at 30°F in the winter time and 90°F and 70% relative humidity in the summer time. Yes, the flooring industry has adhesives that go well into the 90 percent relative humidity range and work very well. However, when these extremely wet subfloors start to dry out, they start to move...I can't control that!

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Gapped VCT from subfloor movement

Using concrete admixtures or topical treatments that make specific statements regarding moisture testing not being required when these products are used can void the adhesion performance warranties of the installed flooring product when failure to perform appropriate moisture testing.

Flooring patches and adhesives are made to bond to the subfloor, not drywall spackle or paint overspray. These products are known as bond breakers. Don't hold the flooring contractor hostage because the drywall and painting contractor did not take the time and be professional to other trades and protect the subfloor from their subfloor contamination. By the way, almost every subfloor is going to require some kind of subfloor preparation whether it be patching or sanding even though it was not factored into the bid. Please don't act like this is a surprise.

Flooring Manufacturers; it is highly recommended that the installation of resilient flooring not begin until the work of all other trades has been completed. Flooring materials need to be protected from rolling loads and construction traffic by other trades. Cabinets and other appliances being hauled over the flooring can cause problems if not protected with boards.



Ladder on newly installed flooring



Scratches from dragging fixtures across the flooring

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General Contractor; the flooring in the room has just been installed; this does not mean it is open for destruction by the other trades and maintenance people. If the flooring is installed first, it needs to be protected. Adhesives are still in a wet state and require time to dry. Newly installed flooring should not be exposed to rolling load traffic or point loads such as ladders for at least 72 hours after installation to allow setting and drying of the adhesive. When moving heavy or sharp objects such as cabinets and appliances over resilient flooring installations, place a wood panel under the object. Without moving the panel, slide or roll the object over it. Follow with additional panels as needed. This prevents scratches, tears or buckling of the flooring material.

Before moving wheeled or castered objects over newly adhered flooring, use wood panels to protect the floor by distributing the load. Otherwise, permanent grooves could develop in the flooring, caused by movement in the fresh adhesive. **Flooring manufacturers recommend protecting the resilient flooring with wood panels whenever heavy objects are moved across it.**

On the maintenance side, newly installed hardwood should be completely protected from drywall dust and hardwood flooring is not made to be cleaned with a wet mop and water.

Also, newly installed VCT does not need to be stripped before applying polish. Stripping the VCT right after being installed is the worst possible thing that can be done to this floor. The stripper can have a negative impact on the new adhesive.

As my good friend and colleague Greg Vale continually tells me, “This isn’t rocket science, its only flooring.” The rules for resilient flooring installation have changed very little in the last 30 years. The problem is that fast track construction has changed all the rules.



The key element of success with training installers is a qualified instructor who has the personality and demeanor to earn the trust and respect of the installers. **Tim McAdoo** comes to us with a vast array of knowledge and highly developed installation skills and qualifications that have been amassed over his 32 years in the floor covering industry.

Tim is a certified instructor for Armstrong, Avaire, Konecto and Starloc products. While a member of the Armstrong Installation Training Team since 1984, Tim is privy to all the latest innovations and techniques used in the installation of their products. We are sure