



I am sure you have heard “The new floor is only as good as what you cover,” and that is certainly the case. Here are problems that can cause a lot of resilient floors to fail.

Concrete; Failures that are moisture or pH related continue to be a problem. Testing can detect elevated moisture conditions before they become problems and it can also be another source of income for the professional installer who knows how to do the testing properly. ASTM F 1869 (Calcium Chloride Test) is a test for vapor emissions from the concrete surface and ASTM F 2170 (Relative Humidity Probe method) measures moisture inside the slab. **There is no correlation between these two tests.** Both provide valuable information about the condition of the concrete. There is a growing awareness of these test methods so it pays installers to learn what testing methods are out there and how to do them.

Patching Compounds; Over watering is the number one cause of patching compound failure. Today’s patches are modified with polymers that give them tremendous strength and bonding power, but the chemistry of these products is compromised if too much water is added to the mix. The finished patch layer will be weaker, not as hard and more porous – three characteristics that can adversely affect the floor covering or the adhesive. Another cause of patching compound failure is applying it in too thick a layer so that cracks or it is not dry when the floor is installed. Check the manufacturer’s specs for how thick the patch can go down because most of them can’t go much over 1/2" in a single application. Finally, there is a big misunderstanding out there about skim coating in commercial applications directly over an existing floor like vinyl composition tile. Read the book – chances are the patching compound manufacturer does not recommend this procedure, although many dealers and installers think they do. The reason for this is due to rolling loads possibly breaking up the skim coat over the existing vinyl.

Adhesive Residue; In renovation work, failure to remove the old adhesive can cause problems such as indentation of the new flooring, chemical reactions between the old adhesive and the new adhesive, patch blowing off the floor or complete failure of the new adhesive. If you are just pulling up that old floor, skim coating and installing the new floor, your installations are a problem waiting to happen. Read the instructions and you’ll find that the patching compound manufacturer wants most, if not all of the old adhesive removed from the floor before the patching compound is applied. And, don’t use chemical adhesive remover to do the job because they can cause problems later on with the new adhesive. Use mechanical methods to remove the adhesive residue.

Plywood Underlayments; Today, the three most common panel underlayments are plywood, lauan, or fiber reinforced panels. Most resilient flooring manufacturers are no longer recommending lauan as an underlayment. Lauan tends to be soft and susceptible to denting and crushing under concentrated loads such as furniture legs or high heels. Many of these panels have caused severe problems such as discoloration, delaminating and adhesion failures. If you are using lauan, the flooring manufacturer may not cover any failures and the manufacturer of the panel will be nowhere to be found if you have a problem. Plywood is a superior product to Lauan. Real three-ply or five-ply 1/4-inch-thick underlayment products (like Ultraply XL) are readily available today from flooring supply distributors. These branded products come with instructions for how to install them and have a solid manufacturer’s warranty. Fiber reinforced panel underlayments are common in the stone and ceramic industry and are starting to gain popularity for resilient flooring as well. These products remind one of drywall in appearance and in their score and snap method of cutting, but they are designed to be underlayments so they carry the performance characteristics and warranties for use under resilient.

Adhesive Issues; Adhesive selection and adhesive use are often misunderstood in the process of specifying and installing resilient flooring. For example, although it’s tempting to save money and time, you can’t use clear thin spread to install solid vinyl tile. So, before the job is even quoted it is important to match the adhesive to

the job and quote the job accordingly. Once the adhesive is selected, proper application is critical. The trowel is an application device that puts adhesive on the floor and is also a measuring device that precisely meters the amount of adhesive being applied. Every manufacturer has specific trowel notch recommendations. One trowel for everything will not work for you. I have often seen the results of too much adhesive - sheet vinyl with indentations, tile with adhesive oozing between the joints, lumpy, bumpy cove base, stair treads that shifted because the excess adhesive didn't dry, and epoxy that doesn't cure. The idea that more is better is a huge mistake to make with resilient flooring products. The cost of a trowel is a tiny part of the installation cost. There is no excuse for not having the right trowel on the job.

Seams; There is an art to cutting and seaming products. Seams are what most end users and home owners fear. Today's products are more flexible and easy to cut, but that does not make seaming technique any less critical. Some products are seamed by the double cut method and others by under scribe or straightedge and butt methods. Knowing the difference can make you or break you as far as the finished installation goes because different products have different cutting methods for making a seam. For example, cutting seams in natural linoleum is different than in vinyl or rubber sheet goods. It tends to shrink in length and grow in width, so linoleum seams are often cut slightly open on side seams and not on cross (end) seams. On the flip side, some of the flexible vinyl and rubber products today work best with a double cut seam and the traditional inlaid work best with recess scribing. In these cases, the seams will be net with no gaps. Where to cut the seam is an issue in the case of patterned materials with a grout line. Do you cut the seam in the middle of the grout line or on the edge? This will vary from product to product. Today's fiberglass Loose-Lay floors require seams to be double-cut.

Pay attention to the details and refer to the manufacturer's guidelines. Specialized tools are available for trimming sheet goods and cutting seams so make sure you are ready by having the right equipment. As far as seam sealers, I have seen a lot of split seam failures caused when the seam sealer applicator tip does not penetrate into the seam. This means that the sealer is left only on the surface rather than inside the seam holding the two pieces together. On the commercial side, failures in heat welded seams are often caused by leaving a gap when the flooring is installed so that the welded seam is not as strong as it would be if the two pieces are butted together before welding. Cutting too wide a groove, moving too fast with the welding gun, or having the wrong temperature on the gun are all causes of heat weld failures. Training is available from a number of manufacturers and there is always scrap material to practice on.

Maintenance; Maintenance related complaints are almost as frequent as installation complaints these days. I have found these problems are often the result of misunderstandings because of a lack of written instructions, or because someone who sold or installed the material gave the wrong advice. If you don't know, don't answer. If you give the wrong advice and something goes wrong with the floor, you could be held liable. For example, cleaning for no wax vinyl is often misunderstood. Soap based cleaners can leave a dulling film, where a mild detergent will not. Another example is real linoleum, where the use of strong alkaline cleaners can cause cracking, shrinking and possible discoloration. Yet another example is cork flooring, a resilient flooring material that acts a lot like wood. Using a lot of water on cork can ruin the floor. In all cases, how the floor is cleaned can cause permanent damage. The use of the wrong chemicals or the wrong cleaning or scrubbing pads can ruin the floor. The best advice to an installer as far as maintenance is, if you don't know, don't tell. Somewhere in the manufacturer's material you bring to the job will be a phone number or website address. Find it and give it to the customer. This is one good time to "pass the buck" to the manufacturer, or back to the dealer so the maintenance is done correctly.