

# Flooring Product Testing for a Variety of Unique Cases

Our work at LGM isn't only about looking at all types of commercial flooring failures and issues, from concrete to carpet. It also involves a myriad of different testing both in the lab and on the job site, in and out of the country. For this work we collaborate regularly with Professional Testing Laboratory here in Dalton, Georgia.

We'll share with you some of the more interesting jobs we've had recently. With every new day a new and unique case presents itself. Some of the issues like shrinking, doming and curling vinyl planks are very common, and others are one of a kind issues that present themselves prior to a large installation of a flooring product before it has an opportunity to go bad. With others we may be testing a flooring product for a client that has been specified for a job to see if it will perform as expected. And for other flooring products, we test to see if they meet the manufacturers' specifications.

Products like carpets are much easier to determine if they comply with the manufacturers' spec because you can see how they're made and test for every component such as the weight, fiber type, twist level, stitch rate, gauge and pile height, filler load, backing, etc. With vinyl plank or tile everything is hiding in plain sight and more challenging to detect visibly. You may have to deconstruct these products and conduct a much deeper investigation and testing. And the tests, such as for dimensional and planar stability may not replicate job site conditions since you're only testing three pieces of flooring from an installation that has thousands of pieces. That's why you must know what you're looking for, and at, because there will be tell tale signs of variations. These may be the color of the core, the sheen and texture of the face, or differences in the shades of the backing. With differences from what the product specification states we can let our clients know if they are getting the product they paid for or if they have a case for a breach of contract – a difference in what they thought they were getting and paid for and what they got. Remember what we've always said, the product never lies, it will always tell you what's wrong if you know how to interpret what it's saying. People lie, but not the product.

Let's look at a few of the jobs which we've included pictures of, so you can see some of the things we get involved with around the country.

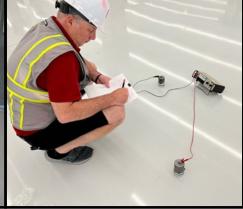
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In one case we were asked to verify the test results on a poured electrostatic dissipative flooring in a new building in which highly sensitive and technical equipment was going to be made. A failure of the flooring could

jeopardize those products. Verifying the performance of the installed flooring was critical before the client moved in. For this job we paired with PTL (Professional Testing Laboratory) for the field testing. The test results confirmed that the flooring was compliant except for two areas, which were ultimately corrected.







New 250,000 square foot technical building where we tested new flooring to confirm ESD (electrostatic discharge) compliance

**Testing for Electrostatic Discharge to** confirm the ESD flooring compliance

On another job we were testing terrazzo flooring in a hospital for coefficient of friction, also with PTL. The reason for the testing was due to people slipping and falling on the flooring with the finish that had been used. It was determined that the finish being used on the terrazzo was causing the problem. We recommended a finish by NeverStrip, that solved the problem and also saved the client money since they didn't have to strip and finish the flooring with this new product and process.



On site Bott testing being conducted for coefficient of friction



### THE COMMERCIAL FLOORING REPORT

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Professional Testina Laboratory





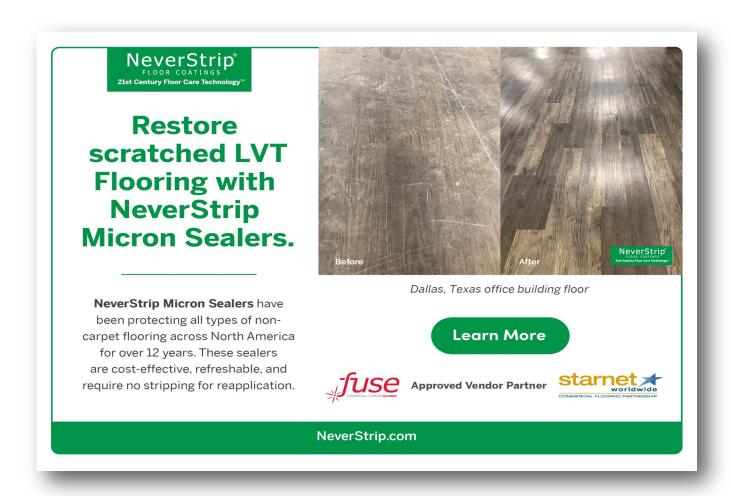


Page Layout By: Anita S. Drennon

In another matter we tested a carpet for a Carpet One member, (we've done work for Carpet One for years) for a soiling complaint. A sample of the soiled carpet, which had been replaced, was sent in as well as a new, never installed piece. We cleaned half of the soiled sample with hot water extraction and did an extractable matter and accelerated soiling test on the new samples. The examined soiled sample also revealed that the dark spot had a residue and there was evidence of a spill because it was visible on the backing of the carpet. The soiled sample was easily cleaned and the extractable matter and accelerated soiling test proved the carpet did not have any inherent soil attractive residuals or propensity to soil. This proved the complaint issue was caused by a spill that left a residue that attracted soil and that a professional hot water extraction cleaning would have solved the problem and prevented the carpet from being replaced.



Carpet cleaning and soiling testing results – there was nothing wrong with this carpet



Click on this Ad to Visit NeverStrip's Website for More Information

Issues with click or floating flooring can be determined as well. There is a standard for the engagement strength of a click system that can be tested for but there is no standard for the strength of the tongue

and groove edges themselves yet. It is very common for the tongue to break under stress since it is rigid and does not flex. One of the reasons there is edge lift with these products is due to the substrate not being perfectly flat which stresses the tongue with the result of it breaking. When the edge disengages the connection is broken and the side of the plank will lift. This is why we say do not use this type of product in a commercial environment for this reason. In a residential setting it may be better suited for use but where this type of product is exposed to heavier traffic and rolling loads, it is prone to failure.

The lab has equipment that can examine the engagement system to see if it complies with the manufacturer's spec or if it is not milled properly that may result in a failure.



Broken tongue edge of rigid core click/floating flooring due to flexing from traffic

Another common test we conduct is for wear layer thickness which can often vary. If the product is specified with a 20 mil wear layer, for example, and it turns out to be less than that, you didn't get what you paid for. ASTM F1700 has a tolerance for overall thickness, but not for wear layer thickness. It specifies a 20 mil minimum wear layer thickness for commercial products. Carpet products have a weight tolerance that they must meet, whether to an FHA or GSA standard.

Very often when doing a site inspection and analysis, with enough experience and product knowledge, it's possible to determine what went wrong, why, who 's at fault and how do you fix it. By using your sense of sight, smell, sound and feel - but not taste - when you know what you're looking at, there may be no need for a lab test. The circumstances will determine the depth of the evaluation.

If you have questions, and need help with a flooring problem, from concrete to carpet, we can help you. We have the team, the talent, the experience and the expertise to keep you out of harms way or to determine what went wrong, why, who's at fault and, most importantly, how to fix it.



SOMETIMES WE GET SOME AMAZING SURPRISES FROM TESTS WITH RESULTS LIKE THIS

Come and see me at Surfaces where I'll be doing a presentation on:

# Reducing the Risks of Flooring Failures—Wednesday, Jan 28 2:00 PM - 2:50 PM

**Session Description:** - Flooring failures are the bane of the industry, for whatever reason, be it installation, defective product, the wrong product in the wrong place, substrate conditions, or environmental influences - the list goes on. The increase in new products, with a variety of characteristics and now more PVC free products, present unique challenges for the flooring dealer, installer and contractor. The importance of knowing as much as you can to avoid flooring failures and drains on your business profits is imperative. This program will offer you insight, information and examples

of what to avoid and what happens when you don't. This is information you'll not get anywhere else, in an independent, unbiased and objective

presentation.



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# Plan Now to Attend



### Seminar TU145

Tuesday January 20, 2026 - 8:30 AM -10:00 AM To register go to: www.worldofconcrete.com

# Vapor Retarders, Nuisance or Necessity?



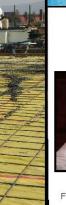
Osmotic Blisters

Presented By:





Breakdown



Peter Craig FACI, FICRI, CCSMTT

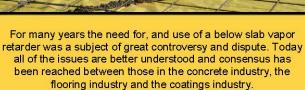


Flooring Delamination





Sweating Slab Syndrome



In this program Peter & Bret will go back over the history of vapor retarder usage and provide answers to the issues that spawned debate over the years.

## Key Topics:

- 1. Why it does not matter how deep the water table is. 2. Why it matters where the vapor retarder is located
- 3. Why permeance and composition matter
- 4. The role that vapor retarders play in sweating slab syndrome (SSS).
- 5. What are today's industry mandates



Bret Houck VP Product Development

Continuing Education Hours 1.5

> AIA/CES LU HSW PDH, TCA

LGM's clients are not manufacturers but flooring contractors, general contractors, construction attorneys and major commercial end users. Our concentration is strictly in the commercial market, but we're here to help anyone. As was said by one of the leading flooring manufacturers years ago and still holds true today, "LGM are not the guys you want sitting on the other side of the table."

As professional industry consultants we are hired by clients to provide expert advice and guidance to solve specific flooring problems, prevent them or improve performance.

We have a deep knowledge, extensive experience, and a decades long proven track record in the flooring industry, earned through years of practice, leadership, and study.

Our team's experience and credentials in the flooring industry are irrefutable and second to none when the objective is to find out what went wrong, why, who's at fault and how do you fix it.

When you have a question on a flooring related issue, or a problem you need help with, we have the independent, objective, unbiased, correct information that can help you.



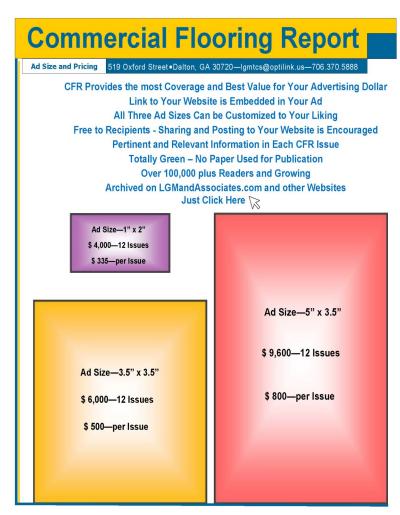


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If you need help, have a question, aren't sure of a situation you're in, want to avoid a problem, or need guidance on a project or product, contact us. We always have the answers, always. It's what we do, from the substrate to what goes on it.

# Click Photo to Visit Website





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