



EMPOWERING INSPECTORS ELEVATING STANDARDS

WHITE PAPER: MOISTURE METER READINGS AND LUXURY VINYL FLOORING - THE NEED FOR CLARITY AND STANDARDIZATION

Executive Summary

Luxury Vinyl Flooring (LVF) is one of the most popular and fast-growing segments of the floorcovering industry. Yet, as its use increases, so does the number of disputes regarding installation issues and material performance. Moisture readings are requested by most manufacturers, but the absence of defined standards, manufacturer guidance, and consistent methodology raises serious concerns about the accuracy, interpretation, and relevance of these readings. This paper explores the current state of moisture meter use on LVF flooring product inspections, outlines industry inconsistencies, and calls for unified guidance.

Introduction

As part of the investigation process, inspectors often turn to moisture meters to assess the condition of the product or subfloor. However, in the case of luxury vinyl flooring, there is a significant problem: no standards exist to define what meter readings mean for this material; if they actually convey any meaningful information. Neither flooring nor moisture meter manufacturers are able to provide specific guidance regarding the type of meter, settings, or thresholds that indicate what the meter readings indicate.

Current Practices and Their Pitfalls

Inspectors are asked to interpret readings without direction. Even among experienced professionals, methods vary widely. Readings are based on wood or drywall settings to get “relative” moisture content, even though LVF is a composite product with completely different physical and chemical properties. Some schools and training programs are instructing inspectors to place planks in unconditioned spaces such as garages or porches to compare the readings — a practice that introduces ambient environmental variables, rendering the results essentially meaningless. Further still, porches and garages may not be from the same pour or have the same mixture components, which can give different readings.

These inconsistencies undermine the credibility of the data collected and the conclusions drawn in the field.

Material Compatibility and Meter Limitations

Most moisture meters are calibrated for specific materials (e.g., wood, concrete, gypsum). When used on LVF — which may include layers of vinyl, limestone filler, fiberglass, and urethane coatings — readings are at best approximate. Critically, because vinyl is not hygroscopic like wood, meter readings don't reflect internal moisture behavior in the same way. Attempting to apply wood-based (or any other) scale interpretations to LVF is fundamentally flawed.



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The Need for Standardization

Without the manufacturer's (flooring or meter manufacturers) specified meter types, recommended settings, and target ranges, site-obtained "moisture readings" are presumptive, at best, which can lead to erroneous conclusions as to the cause of flooring issues.

The following is proposed as a more transparent and reliable approach to taking and interpreting moisture meter readings on luxury vinyl flooring:

- Flooring Manufacturers should recognize that moisture meter readings are only for the day of the inspection and are indicative, not verification of moisture. Especially when taken from the surface of the installed LVF.
- Industry associations and/or groups should collaborate on developing standardized procedures for evaluating suspected moisture-related issues in vinyl flooring – with or without meter use.
- Training organizations must update curriculum to reflect the limitations of using moisture meters on LVF and abandon the use of uncontrolled "reference environments" such as garages or porches.

Conclusion

Moisture meters are valuable tools used daily in the flooring industry on flooring products and substrates by retailers, installation crews, technical services professionals, and inspectors. However, when applied to luxury vinyl flooring, they can become instruments of confusion. Flooring professionals are left guesstimating, manufacturers provide little to no clarity on what type of moisture meter or on what settings, and how the numbers and information should be interpreted for LVF products. Guidance and information would also have to be developed and provided based on the multiple different core materials for uninstalled products and installed products, with consideration given to the type of substrate installed over. Until there is consensus in the industry on standardized protocols — or clearly defined limits of current ones — moisture meter readings on LVF should be treated as relative, observational data only, not conclusive evidence.