



The Value of
Reliable Moisture Meters in the
Lumber and Hardwood Flooring
Industries



Table of Contents

- 1** Moisture Meters: An Essential Tool in the Hardwood Flooring Industry
- 2** The Benefits of High-Quality Moisture Meters for Hardwood Flooring Professionals
- 3** Your Guide to Choosing the Best Moisture Meter for Your Hardwood Flooring Applications
- 4** How to Get the Most Out of Your Moisture Meter: A Guide for Hardwood Flooring Professionals
- 5** First-Class Technical Support Allows Denver Hardwood to Impress Clients



1

Moisture Meters: An Essential Tool in the Hardwood Flooring Industry

This opening article in our in-depth series explores the unique moisture meter needs within the hardwood flooring industry. We will look at the various stages of hardwood flooring and why installers need to maintain optimal moisture levels throughout a project.

More importantly, we will share how meters can help professionals keep hardwood material in top shape by preventing damage caused by high moisture content. Our insights on moisture measurement apply to various applications within the hardwood flooring industry including installers, inspectors and associated trades.

Understanding Hardwood Flooring

Wood flooring is hygroscopic by nature, which means that the material loses and absorbs moisture in response to the humidity levels of the surrounding atmosphere. For instance, hardwood flooring materials may gain moisture in response to a humid environment or lose water content in dry settings. Temperature and humidity levels vary across regions of the country so the job site conditions for moisture content of wood vary accordingly.

While hardwood flooring is durable, natural, and renewable, it is essential to keep humidity levels between 35% - 55% and temperature levels between 60 to 80 degrees Fahrenheit to maintain the long-term performance of installations. A quality moisture meter helps you make sure the flooring is at the right equilibrium moisture content (EMC) levels at installation and while in service as well.

Maintain Job Site EMC - Equilibrium Moisture Content

Hardwood flooring will take a few days to weeks to reach EMC levels or fully acclimatize to a specific environment, depending on the wood's moisture content and relative humidity levels in the area. The EMC is an essential metric for the hardwood flooring industry as installations that do not meet the condition may start to show signs of damage, such as warping, buckling, gapping, crowning, and cupping when exposed to wet environments.

Flooring installers require an accurate, reliable moisture meter to check that material has reached EMC. A wood moisture meter makes it convenient for you to accurately track the progress the wood is making in reaching EMC. Check the moisture levels every few days until the readings stabilize and remain within +/-2%. You can be confident you've established the flooring's EMC and proceed with installation.

Installations at less than optimum ambient conditions usually result in callbacks and costly defects. Not to mention unhappy customers.

Reduce Liability Issues

Moisture-related damage may result in costly material losses and undermine your professional reputation in the long term. A moisture meter enables you to thoroughly check the moisture content of both the floor and subfloor at every step in the process.

Checking the moisture during acclimatization and floor installation lets you assure customers that they will receive quality and durable products that last. Also, with reduced liability issues, you can expect less repair work from warranty claims, so you can focus on other value-added aspects of running the business.

Determine Moisture Content Based on Wood Species

Each wood species reads differently at the same level of moisture content and has its own electrical properties that affect its behavior and overall durability. Choosing a professional-grade moisture meter that employs built-in species corrections is important for accurate measurements. By choosing the proper settings according to wood species, you can more precisely gauge the movement of flooring that can occur during seasonal shifts and avoid miscalculations and damage that may occur when using non-specific moisture measurements.

Record Processes for Future Reference

Some moisture meters enable you to record MC readings and conditions for sharing and documentation purposes. These recording functions usually include the date, time and geotag, providing accurate information for tracking specific moisture issues. For example, you may refer to data from a specific installation as a reliable reference for comparing and overseeing future projects within the same area with greater confidence. You may readily present the documentation to confirm to a customer that you followed industry standards and procedures.

Delmhorst — Discover the Ideal Hardwood Flooring Moisture Meter

Delmhorst Instrument Co. is a specialized solution provider of reliable and user-friendly moisture meters for various industries, including hardwood flooring.

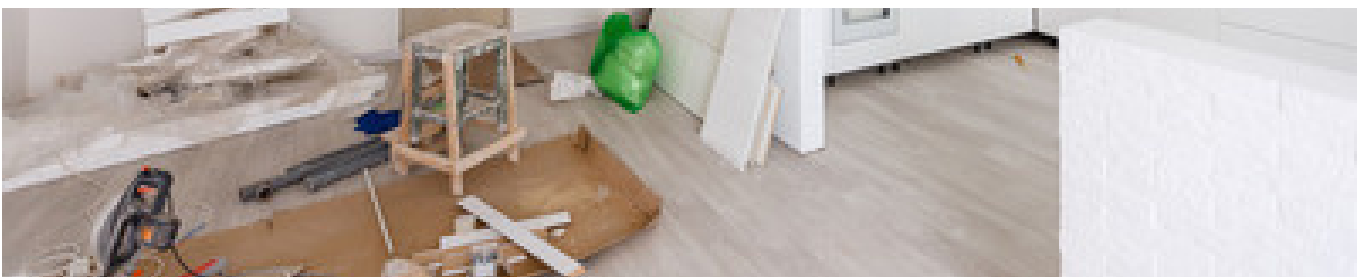
The new JX-20 and JX-30 are the latest meters in the new Navigator family, bringing flooring installers and inspectors two more professional-grade, accurate and versatile tools to address moisture issues with complete confidence. The JX-30 features the Delmhorst EDGE™ App with expanded wood species, customizable settings, and the ability to share data from any location.

The popular J-2000 provides flooring installers and inspectors with built-in species and temperature correction to capture accurate MC readings across ever-changing job conditions. The model has storage capabilities for easy reference between different job sites.

Another Delmhorst moisture meter model, TotalCheck 3-in-1, offers corrections for 69 wood species in pin mode, and employs scan and thermo-hygrometer modes for added versatility. The moisture meter provides fast and accurate results every step of the way.

Our next article highlights the significant advantages of choosing high-quality and reliable moisture meters over standard alternatives for your hardwood projects.

Contact Delmhorst's experts for more information to discover a suitable moisture meter for your specific hardwood flooring needs!





2

The Benefits of High-Quality Moisture Meters for Hardwood Flooring Professionals

Our second article in the series highlights the practical benefits of quality moisture meters for hardwood flooring professionals. Our previous article shared the importance of accurate moisture measurements in keeping hardwood flooring in optimal condition for safety and aesthetic purposes.

Here, we'll take a deeper dive into the advantages of quality moisture meter models that support hardwood flooring professionals in handling on-site tasks with consistency and confidence.

Revisiting the Fundamentals of Hardwood Flooring

Wood is a hygroscopic material that absorbs or loses moisture to reach a state of equilibrium based on its immediate environment. The NWFA guidelines state that installers should typically take 20 readings per 1,000 square feet for wood flooring to acquire an accurate average result. A high-quality moisture meter enables you to obtain a precise measurement of overall MC for a high quality and trouble free hardwood flooring installation.

Typically, you will need to let the flooring material equilibrate to 6-9% MC and 35-55% relative humidity levels for a safe installation. Reaching equilibrium prevents surface defects on hardwood flooring, including crowning, cupping, buckling, warping, shrinkage, and cracking.

Accurate Data Reports

Quality moisture meters can provide clients with assurance through trackable and accurate data showing that an installation was performed within the industry standards. Additionally, some moisture meter models come with app and software capabilities that make it convenient for you to print or send an MC report to clients without fuss.

Pin-type moisture meters work particularly well for both the subfloor and hardwood flooring, using insulated contact pins that penetrate various depths of an installation for comprehensive results.

Optimize the Efficiency of Moisture Measurements

The combination of quality pin, pinless and thermo-hygrometer devices gives you a thorough and accurate assessment of moisture content in hardwood flooring, subfloors and the ambient conditions. Using these specialized devices reduces the risks of defects and smoothes the installation process.

Pin moisture meters enable you to measure MC across a range of wood materials through the principle of electrical resistance. Use insulated or non-insulated electrode pins, depending on the conditions to obtain accurate readings and assess moisture levels throughout the process and take the necessary actions without guesswork.

Pinless meters typically use the relationship between the MC and the dielectric properties of the material under test to assess moisture levels. Some pinless models feature a fixed depth of penetration while others are adjustable, offering versatility.

While pinless models may not provide the same accuracy as pin/probe devices, they enable you to obtain a general, overall condition across large areas with minimal time. Pinless models can be more practical for installations with prioritized aesthetics, operating through most water-borne coatings without leaving visible pin marks.

Applicable Across Multiple Projects

Some quality moisture meters can function across different building trades applications through pin, scan and thermo-hygrometer functions. You can rely on a multi-function device rather than alternating between models, which results in inconvenience and extra expenses.

Delmhorst's TotalCheck 3-in-1 moisture meter offers such functionality. This versatile meter also conforms to ASTM F-2170 - the standard that assesses the suitability of concrete slabs to accept flooring materials.

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Determine the Exact Cause of Hardwood Flooring Damage

Hardwood flooring faults may occasionally occur due to undetected moisture damage, possibly resulting in costly large-scale replacements.

Quality pin-type moisture meter models enable you to detect the exact cause of flooring damage through an accurate measurement with sensitive contact pins. Advanced versions of pin models feature built-in compatibility for multiple hardwood species, enabling you to check against the acceptable %MC range with precision.

Delmhorst: Efficient Moisture Meter Solutions for Hardwood Flooring

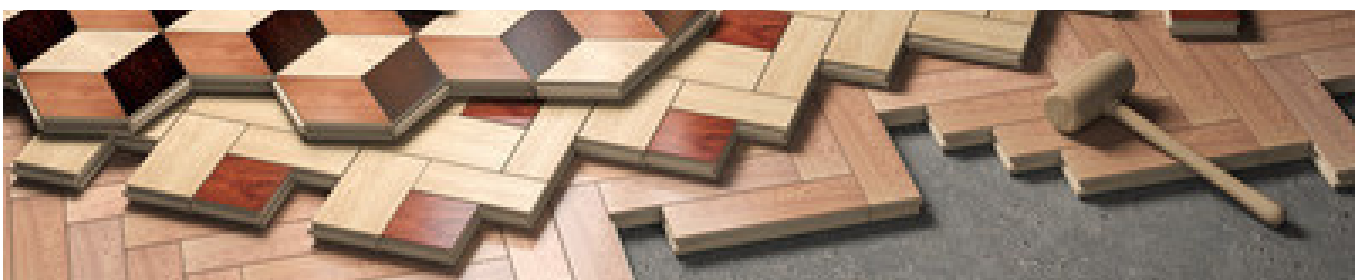
Delmhorst Instrument is a specialized solutions provider for moisture meters catered to specific industry applications, including hardwood flooring installations.

We provide an assortment of pin and pinless moisture meters that offer the most comprehensive readings according to your project specifications. Our moisture meters are essential tools for professionals in the hardwood flooring industry and favored for their user-friendly interface and efficient operation.

For example, the new Navigator family BDx and Jx meters provide an ergonomic grip handle that lets you obtain precise readings comfortably and with unmatched convenience. The large tactile buttons and wide LCD screen with auto backlight provide easy reference across different job conditions.

The next article in our series explores the specific features and functions to consider when narrowing down your search for the most efficient moisture meters for hardwood flooring measurements. We will highlight various applications within the trade and illustrate how specialized meters can expedite and optimize moisture measurements.

Reach out to Delmhorst to discover the most suitable moisture meter model for your hardwood flooring needs.





3

Your Guide to Choosing the Best Moisture Meter for Your Hardwood Flooring Applications

This third part of our series on the hardwood flooring industry highlights the benefits of choosing top moisture meter models. We will follow up on the previous article that presented readers with a clearer idea of how quality moisture meters meet the specific needs of professionals in the hardwood flooring industry.

We will hone in on the most suitable Delmhorst moisture meter models for effectively meeting the typical demands in the hardwood flooring installer and inspector. These models enable industry-critical functionality such as optimized moisture measurements, hassle-free application across large-scale projects, and accurate moisture detection in floors and sub-floors.

Recommended Moisture Meter for Optimized Readings in Hardwood Flooring Applications

The acceptable range of moisture content within hardwood flooring depends on the environment but typically lies between 6-9%. Since wood is a hygroscopic material that shifts its moisture level according to its surrounding environment, you will need a reliable moisture meter that helps to maintain moisture equilibrium, optimizing the durability of installations.

Recommended Moisture Meters for Moisture Detection in Hardwood Flooring

Hardwood flooring contains multiple layers, each with differing MC levels. A pin-type moisture meter, when used with electrodes with insulated pins, provides precise detection of MC at specific depths, giving you a better assessment of the source of any moisture damage. Quality pin moisture meters should also include built-in capabilities for reading storage to expedite reports and follow-up repairs.

JX-30 and BDX-30

These two meters from Delmhorst's new Navigator™ series are the ultimate pin-type moisture meters for damage detection and on-site management. We recommend either the BDX-30 or JX-30 wood flooring configuration for hardwood professionals, including the meter, 26-ES hammer electrode, extra pins, and carrying case for ready deployment across your job sites.

Also, you may conveniently link the meters with the intuitive Delmhorst EDGE™ app via Bluetooth® connectivity to export data such as geotags and timestamps from any location.

Recommended Moisture Meter for Large-Scale Measurements in Hardwood Flooring

Some hardwood flooring scenarios require pinless moisture meters, specifically when the flooring pro or customer/homeowner prefers not to compromise the aesthetics of an installation with holes from pins' penetration. Scanning a sizable job site with pinless models quickly assesses moisture hot spots and helps determine where more exhaustive testing with a pin meter may be necessary.

Proscan

Delmhorst's Proscan moisture meter offers a non-invasive method of measuring MC quickly and accurately across your hardwood flooring structures. The pinless model uses advanced and carefully tuned radio frequencies to detect moisture levels across many building materials, including wood and drywall, and can also provide relative moisture information on concrete surfaces. It is important that firm, positive contact is made between the sensor and a smooth surface.

Proscan comes with a built-in correction for specific gravity of a variety of species across a range of .30-.80 SG and measures MC on wood over the range of 5-30%. The model functions through a durable one-piece sensor that measures MC 3/4"-1" deep without damaging the sample. Also, Proscan comes with a hold function, so you can easily guide the meter over inaccessible areas to acquire a quick and accurate reading.

Recommended Moisture Meter for Versatile Applications in the Hardwood Flooring Industry

Some flooring professionals prefer an “all-in-one” meter that offers both pin and pinless functionality as well as a thermohygrometer. This configuration lets the user thoroughly analyze moisture content in hardwood as well as other flooring materials. Combo moisture meter models will spare you the hassle of bringing multiple models to a job site.

TotalCheck

The TotalCheck 3-in-1 moisture meter allows you to toggle between pin and scan configurations. Also, the advanced model comes with a removable relative humidity/temperature sensor that you can use to measure ambient job site conditions, critical info for the success of any installation.

Delmhorst's TotalCheck's pin mode measures 5-60% wood scale and 0–100 numerical reference scale for non-wood building materials. The model's scan mode provides a 0–300 numerical reference scale for easy application across multiple materials. TotalCheck can also be used for in-situ testing of concrete slabs in accordance with the ASTM F2170 standard.

Additionally, the advanced moisture meter models enable you to store up to 1400 MC readings along with their date and timestamp data, supporting reports for detailed project management. TotalCheck's system makes it convenient to categorize readings according to a job for easy reference.

Delmhorst Instrument - Your One-Stop Source for Quality Moisture Meters

Delmhorst offers a diverse selection of moisture meter models suited for various applications and demands within the flooring industry. Additionally, we provide an assortment of quality electrodes and accessories to meet most applications. You can trust the friendly specialists at Delmhorst to guide your search for the best moisture meter through in-depth product knowledge, dedicated technical support, and quality customer service.

The next installment of our blog series shares practical tips and guidelines on how hardwood flooring professionals can optimize moisture meter use across job sites.

Reach out to Delmhorst's experts today to discover the most suitable moisture meter for your hardwood flooring needs!



4

How to Get the Most Out of Your Moisture Meter: A Guide for Hardwood Flooring Professionals

In this fourth segment of our in-depth series, we'll dive into the best practices for hardwood flooring professionals to get the most out of their moisture meters. Our latest blog continues from the previous article that recommended some of the top Delmhorst moisture meters for specific hardwood flooring applications, including the BDX-30 pin meter from the Navigator™ series and ProScan non-destructive meter.

This article highlights the careful measures that professionals can take to ensure accurate and efficient measurement of moisture levels in hardwood flooring installations. These recommended procedures include selecting the most suitable meter for the job, utilizing established calibration methods, and referring to a diverse range of available resources as a reliable guideline.

Select the Most Suitable Moisture Meter

The first step for optimized moisture meter use involves applying the most appropriate tool for your particular application. As highlighted in our previous article, pin meters will help identify the exact location of any moisture damage within your woodwork and determine MC at varying depths for a comprehensive assessment of moisture levels throughout the material. However, pinless models operating through electromagnetic wave frequency are ideal for scanning vast areas efficiently.

Bringing both a pin and pinless moisture meter model to hardwood flooring projects enables you to conduct wide-area scans and examine exact moisture content in hardwood flooring at various penetration levels.

Remember that pin meter readings may vary by species, temperature and even electrode type (insulated pins vs non-insulated ones) while pinless meter readings are most influenced by the specific gravity of the wood. Corrections further corrections for accurate results.

Perform Moisture Meter Calibration Checks

As with all equipment, it is vital to perform regular checks on your moisture meters to ensure that they continue to function with optimal efficiency across projects and through the years.

Routine moisture meter calibration checks ensure that your devices continue to detect a consistent MC reading range with minimal deviation. A single percentage of points off the usual scale could result in significant differences in MC readings, affecting the quality of an installation.

Delmhorst provides built-in calibration checks for its digital moisture meters to ensure that you capture accurate MC readings. We also recommend checking calibration through other external reference methods, such as sensor blocks and moisture content standards, for precise calibration results. Typically, professionals use the sensor block method for pinless calibrations and a moisture content standard (MCS) for pin models.

You can check electrical calibration of your pin meter models by aligning their pins against the MCS's metal contact and checking the readings against the values outlined in the provided instruction manual. Similarly, when calibrating pinless models, hold your meter's scanning plate against the sensor block to acquire a reading for comparison with the value listed in the instruction manual.

For pinless calibrations, it is important to use the proprietary sensor block designed for your specific moisture meter, as devices from other manufacturers may lead to inaccurate pairings.

You may compare your moisture meter readings with another identical measuring device as a third calibration option. However, you should consider using another device for calibration only as a last resort, since it provides a lower accuracy than sensor block and MCS methods.

Access User Manuals and Online Moisture Meter Resources

When in doubt, refer to the user manuals provided with your specific moisture meter models. These guidelines will usually include an easy reference for calibration processes, wood species corrections, and MC ranges that will help you optimize the use of your moisture meter.

Delmhorst offers detailed and accessible online resources that will guide you in leveraging the full benefits of your chosen moisture meter models. We have categorized our moisture meter eGuides based on industry to quickly direct you toward relevant device information and best practices.

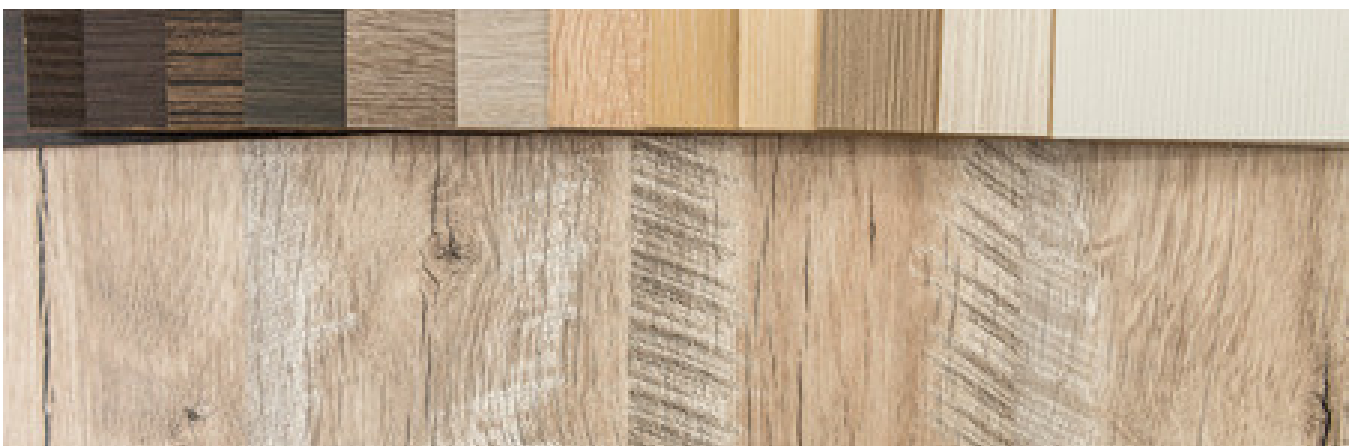
The original Delmhorst guide, "Complete Guide to Measuring Moisture in Flooring Systems," provides an organized reference to the common moisture concerns faced by industry professionals and how you can avoid them with quality moisture meters.

Delmhorst - Your Leading Partner in Quality Moisture Meters

Delmhorst Instrument has over seven decades of industry expertise in providing hardwood flooring professionals with a diverse selection of advanced moisture meters for various applications. Our friendly and experienced moisture meter specialists will guide you toward the most suitable model for your specific requirements through exceptional product knowledge and unmatched customer support.

The next blog in our series unpacks an insightful case study on the real-world benefits of Delmhorst moisture meters within the hardwood flooring industry.

Contact Delmhorst's dedicated experts to discover the most suitable moisture meter for your hardwood flooring projects today!



First-Class Technical Support Allows Denver Hardwood to Impress Clients

Denver Hardwood Company is a trusted supplier to professionals in the hardwood flooring industry and an architectural and interior design consultant. The company provides a range of services for both commercial and residential flooring projects, plus plenty of helpful online resources. Shawn Carrier manages the ProShop, Denver Hardwood's specialist tool division. The ProShop provides repairs for worn-out or damaged equipment, helps tradespeople find replacements where necessary, and also talks professionals through upgrading their existing equipment.

The Need

The team at the ProShop has over 50 years of combined experience and a reputation for helping their customers choose the right tool. With so many tools on the market, Shawn and his colleagues prioritize keeping current with the newest additions, particularly high-tech choices like moisture meters. Shawn recently noted that a considerable amount of misinformation is circulating about moisture meters. He pointed out that many clients don't understand equalization, and that simply hitting the right moisture content in hardwood flooring doesn't always fix the issue. There are other factors to consider that a moisture meter can help with. To properly advise customers on how to measure moisture content and use that information to make jobs more cost-effective and efficient, he and his colleagues needed to be fully trained on using the devices.

The Solution

Because Shawn works with Delmhorst Instrument as a provider of high-quality moisture meters, he has access to a complete range of technical support, digital resources, and in-person training. Among the many benefits of this extensive support, Shawn particularly appreciates when members of the Delmhorst team make on-site visits to demonstrate how to use the devices to better measure moisture content in hardwood flooring. Beyond that, Delmhorst experts will also speak directly to Shawn's clients in the hardwood flooring industry, answering queries to ensure better and more long-lasting customer relationships.

The Impact

As well as naturally boosting the customer experience, Shawn notes that because of the excellent support from Delmhorst, Denver Hardwood's sales have gone up. Shawn is also delighted to report that claims due to issues like wood shrinkage have dropped because clients better understand the relationship between moisture content and wood.

Shawn and his team continue to be impressed with the care and respect that Delmhorst brings to their relationship, citing their consistency in explaining things thoroughly and making sure they provide comprehensive training and resources.

If you'd like to know how high-quality, accurate moisture meters plus the right training and resources could optimize your business, contact Delmhorst for more information.





Delmhorst Instrument Co. has built a reputation for designing, manufacturing, and marketing the highest quality moisture meters available on the market –right here in the USA!

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