

Frequently Asked Questions

Q1: Who needs the fidbox®?

A1: Basically, it can be said that all persons involved in a hardwood floor surface needs the **fidbox®**! This includes the specifier, building owners, contractors, installers and even the end-user. The **fidbox®** from floorprotector closes an important gap between high quality building materials, building technique and room climatic conditions which result from use. Harmonized to one another and used for quality assurance, important insight can be gained from an environmental, economic and health standpoint that will sustainably improve the indoor environment for your personal well-being. A healthy room climate is good for you and your hardwood floor. The **fidbox®** helps to optimize sustainable indoor room climatic conditions.

Q2: How does the fidbox® work?

A2: The **fidbox®** is equipped with two separate measuring sensors for the measurement of temperature in °C or °F and relative humidity in %. These two identical measuring sensors measure, during the long years of operation, the different climatic values of the upper floor surface and the substrate below the floor, separately from each other.

Q3: How reliable and accurate are the fidbox® measuring data?

A3: The measuring sensors of the **fidbox®** are tested by independent testing institutes and certified accordingly. During the testing, a so-called "long-term drift" is considered. The accuracy deviations are as follow:

Rel. Humidity: +/- 2%
 Resolution: 0.03%
 Temperature: +/- 0.3° C
 Resolution: +/- 0.01° C

These certificates are available in the German language only and you can receive a copy upon request.

Q4: What is the life expectancy of a fidbox®?

A4: The **fidbox®** measurement element is suitable for measurement intervals from 1 minute up to 250 hours. The life expectancy refers to and is dependent upon the individually calibrated measurement intervals and how often a **fidbox®** measuring element is read with a handheld reading device.

The readout process causes more intensive drain on the lithium battery when compared to the individual data measurement. If the **fidbox®** measuring element is set on a measurement interval of every 8 hours as we recommend, then data can be measured and read for about 7½ to 8 years.

Q5: What happens to the fidbox after almost 8 years of use?

A5: Once the battery power has been depleted, the **fidbox** will stop taking data measurements and it will not send a signal so that it can be found. The **fidbox** can remain in the flooring without causing any damage or interruption of use in any way. The stored data will remain accessible, but must be removed and returned to FloorProtector for data extraction.

Q6: Can the battery be recharged?

A6: No! The battery used in the **fidbox®** is a 3V DC Lithium Cell with 125 Ohm which was developed for NASA and has an excellent shelf life. It is sealed in a protective case and then sealed air-tight in the **fidbox®** casing with the sensors. It cannot be re-charged. The actual wear on the battery begins by activation. A shelf time of 1 or two years in a dormant status would result in a loss of perhaps 30 calendar days.

Q7: Can the fidbox® be defective?

A7: Yes it can! This is a seldom situation but it is not impossible. Just like any electronic device, mobile phone or otherwise something can happen. The **fidbox®** measuring element is completely cast in plastic and therefore resistant against moisture. Since this is an electronic component with a sensitive measuring technique, you should still treat it with particular attention. If the **fidbox®** measuring device for example is kinked or punctured, the technique is severely disturbed or even destroyed. Electronic technology is fundamentally sensitive to electrical strong magnets. So please keep them at a distance. Once installed, the **fidbox®** is nearly indestructible during its life expectancy. The **fidbox®** is warranted to function for the duration of its life expectancy which is dependent upon how it was used. This can be determined in our technical lab. If the **fidbox®** fails to function for reasons related to production quality, it should be returned to FloorProtector and it will be replaced free of charge.



Q8: Will the fidbox® generate harmful radiation?

A8: The **fidbox®** measuring element which is installed in the floor contains a so-called "semi-passive" measure and data transmission technology. The years of continued measurement of temperature and humidity produce basically no measurable radiation. A single micro-processor is used within the **fidbox®** element for date, time and for the stored measurement data.

A much reduced radiation field of 8 Volt/meter is created in the immediate radius of 50 cm around the **fidbox®** element for a short time and only during the time required to read the measurement data using a special handheld/readout device. The measurable radiation produced exclusively during this reading process is classified as very low, thanks to the "RFID" (radio frequency identification) technology. The limitations for this radiation are at 40 volts/meter. A standard cell phone transmits 70 volts/meter.

Please Note – released radiation is present only during the time of a data read out. Before and after, there is no measurable radiation.

Q9: Are conclusions about the indoor environment possible with the fidbox®?

A9: Hardwood flooring in general and wood in particular is a hygroscopic material which reacts. It takes moisture from the surrounding space i.e. from the air or from the screed, respectively when the indoor air is too dry, wood releases its moisture again. This moisture balance results in dimensional adjustments and unfortunately all sorts of problematical situations. For this reason it is very important to keep an eye on certain developments.

The room climate is dependent upon a lot of, independent from each other, factors that result in lasting effects. The **fidbox®** data provides very precise measurements on installed materials, "the material climate". Thus, there is a credible and representable long-term analysis of the actual prevailing events and their effects.

In principle, secure conclusions from **fidbox®** readings on the prevailing climate conditions are possible - but in any case require a hardwood flooring inspectors' interpretation and support.

Q10: How is the fidbox® installed?

A10: It requires only a few steps. In a detailed laying instructions, we explain with very clearly illustrated images, how the **fidbox®** data measurement unit is functionally integrated into the hardwood flooring.

The hardwood element needs to be milled out, the **fidbox®** installed in the element and then simply install the element. Finished in less than 5 minutes!

We will gladly assist you in the planning phase for which room a **fidbox®** should be installed. In the residential sector, we always recommend a **fidbox®** measurement element to be installed in the most frequented area such as the living room. This is where you find the most intense temperature / humidity fluctuations.

Q11: How is the data retrieved from the fidbox®?

A11: The readout of the **fidbox®** element has been designed as simple as possible. With a specially developed reading device, the stored data can be retrieved wirelessly from the **fidbox®** element and stored in memory as required without any damage to the hardwood floor.

The procedure is simple. It involves using a handheld device or a notebook computer with a USB reader. All **fidbox®** units installed within 10 Meters of the reader will report in latest every 8 minutes. If the location is known the **fidbox®** can be quickly read-out using a magnet to activate it. It can then be read out without difficulties or any loss of the data.

Q12: Are there different versions of the fidbox®?

A12: Yes! The **fidbox®** is an electronic monitoring system and it improves with time as new technology becomes available. In 2008 we were working with the version 4.5 and in 2011 we introduced the version 5.0! It is important to know if a client has an old version of the **fidbox®** as the new reading devices are not set up to read the old **fidbox®** version and vice versa!

Q13: Do I need my own read-out device for the fidbox®?

A13: An installed **fidbox®** can be read-out at any time and within minutes without causing damage to the floor or causing any interruption in the use of the room. A handheld reader device is required to achieve this read-out. Generally, your flooring contractor will either have or can get the required device in order to perform the read-out.

Having your own reading device definitely makes sense if you wish to establish the **fidbox®** measurement technology as an active quality management system in your company or your building. The cost is attractive and you can have access using your own system at any time needed and react immediately - without eventual delays and get an immediate evaluation.



Q14: Is the fidbox® accepted by the courts?

A14: Ultimately, the public or court appointed hardwood flooring inspectors are entrusted by the court for an advisory opinion, which is the justification for any accurate failure analysis. In addition to this justification, the hardwood flooring inspector can now back-up his analysis with long-term data records that show the events leading up to any damage claim. This provides the judicial authority with a credible tool and a clearly understandable support for their decisions. As a very positive aspect, we can see that the long-term data of the **fidbox®** can lead to an early clarification of the situation and permit a prompt solution for all parties without a lengthy and costly legal process. The well-known and often used heat seals that change colour by exceeding a threshold temperature are also acknowledged by the courts and the **fidbox®** follows this same principle to a more far reaching and scientific extent.

Q15: Is there information about quality assurance?

A15: In cooperation with the Central European Association of Parquet it was decided that the **fidbox®** should be identified as an excellent technical innovation and given special attention. It shall be further tested in the internal sense of the "Central Association" and certified accordingly. For a permanent quality of the measurement results, the Leibniz University in Hanover was charged in 2009 with a permanent batch testing of all manufactured **fidbox®** measuring elements in a random selected testing process. Certain is certain! On request, we will gladly show you the results.

Q16: Is the fidbox® accepted by hardwood flooring inspectors?

A16: Industry-known and judicially certified assessors and also guild board members of the European Hardwood Flooring Association recommend the sustainable use of the **fidbox®** for obtaining relevant data. The **fidbox®** provides very accurate and reliable long-term data records over long periods of time that the hardwood flooring inspector can use as support in his argumentation and failure analysis and thereby supports their written report and helps in making final decisions. The **fidbox®** alone cannot replace an expert evaluation in the event of a problem. The goal is to assist a mutual analysis with all parties as to the causes and determination of the best possible solutions in the shortest period of time.

Q17: Are the hardwood inspectors familiar with the evaluations?

A17: Basically, the public or court-appointed hardwood flooring inspectors that are entrusted by the courts for preparation of an advisory opinion are capable of interpreting our informative analysis and reporting data. If any questions arise about details or methods used, we are available for consultation. Even if there are more questions about interpretations of our analysis and data tables, or on-site support with a site visit if necessary. If you speak to a hardwood flooring inspector that does not know the **fidbox®** system, we will gladly contact him direct and offer the best possible support.

Q18: What other applications are available?

A18: The **fidbox®** is suitable for use in for gathering needed information in locations where a **fidbox®** has not been installed. A temporary installation at floor level left for a few days will provide basic information about the room climatic conditions at floor level. This will not however show the moisture from the substrate. The **fidbox®** can also be used in the warehouse to control production storage. Another application is to include the **fidbox®** in a shipment from the warehouse to a project whereby a continuous, non-interrupted record of temperature and humidity from the warehouse, during transport, acclimation on site, during installation and after the first cleaning which gives a recorded documentation from the start.

Q19: Can I sell the fidbox® to my clients?

A19: The importance of compliance with indoor climatic conditions and the need for maintenance should be discussed as part of the obligation of disclosure. This is best covered during the initial consultation with the architect and the client and ideally during the overall planning and quotation phase. We recommend that you maintain an on-going consultation protocol. This will show your client just how intensive your concerns are in regards to the improvement of quality and security in his interest. Confirm the financial investment of the client by giving your full attention to his requirements and thereby distinguish yourself from the competition. If you submit a quotation, be sure to put this position on the offer and argue with the easy to identify advantages. Clarity and Security! This security, this new form of insurance and credibility will certainly convince your customers.



Q20: How do I advise my customers on the use of the fidbox®?

A20: As a renowned specialised hardwood flooring company you are required already during the consultation phase to explain to your customers in detail about the required future care of the product in the form of a maintenance recommendation. This is a special responsibility to explain and therefore great attention is necessary in regards to the subject of indoor climate conditions.

Inform your customers openly and extensively at this time about the sensitive interaction of temperature and humidity and of course the partial negative effects that can occur. Particular emphasis should be given when underfloor heating exists. The customer should know what to look for and thereby be in a position to identify negative developments that can be countered immediately if detected early and before irreversible damage occurs.

For this reason it is very important to observe and analyse measuring data by certain developments in order to make mutually with all parties concerned correct, definite and clear decisions.

Ultimately this is also important in terms of healthy living.

Q21: Is the use of the fidbox® worthwhile and does it have value for my customers?

A21: The use of a **fidbox®** element is always a worthwhile investment. Use the **fidbox®** element for active quality assurance and check, together with your customers, in fixed intervals over several years the course of events. This will help to take advantage of the opportunity to make an early response to conspicuous developments. This fits very well into a maintenance contract. It is also a key to generating more customer proximity and customer loyalty. Ultimately the **fidbox®** creates - clarity and provides security for all parties.

Very positive is the argument "Heat curve analyse" when using underfloor heating. Already in the first heating season, the **fidbox®** element can be evaluated. It is immediately apparent at what setting and how intense the underfloor heating has been heated up and cooled down.

If this is shown in a steep upward heating curve then very much energy is being consumed. If this apparent heat curves levels out – meaning it is slower in heating up and down - then you also reduce the need for heating and naturally, reduces the overall heating costs.

The **fidbox®** will pay for itself within the first year after installation. It is also a good value for your client.

Q22: Can the fidbox® be installed without the knowledge of the client?

A22: Avoid unnecessary discussions and loss of client confidence. We always recommend that you propose the positive value for preventive measures and the quality assurance capability of the **fidbox®** measuring technique in your direct consultation with the owner and architect. The advantages are great for all parties. Therefore the use of the **fidbox®** should be addressed in the consulting/quotation phase. The **fidbox®** measures and stores only temperature and relative humidity in the installed building material. There are no personality traits which would be touched or injured in any way so as to require special protection.

Inform your client of your intention to insert a **fidbox®** data measuring element for the security of all parties and inform them about which data are measured. In urgent situations, transparency is provided for all parties, which is in the interest of your client and leads to prompt and accurate solutions. In this way you will win on credibility with your client and secure his financial investment as it is in his personal interest and protects his investment.

Q23: What advantages will the fidbox® bring me?

A23: The advantages of use of a long-term data recording of temperature and relative humidity are clear and explicit. Often the most critical situations occur within the warranty period that partially causes a technical strain on the floor construction. Complex material structures react sensitively to climatic changes of temperature and relative humidity. It is particularly important to keep certain developments under observation so that if it becomes necessary, to consider complicated liability determination, you can get clear and explicit data to help make indisputable decisions. At the same time the data can help to find a prompt and corrective action to solve the problem before it gets too intense.

The performance spectrum of **fidbox®** measuring technology makes an important contribution to this with detailed analyses and secured long-term measurement data for quick clarification and for the benefit of all parties.

Unique - Secure – cannot be manipulated

Q24: How can I purchase the fidbox®?

A24: FloorProtector will not sell to the public direct! You must contact your installer who will then contact his distributor for a quotation and for technical advice if this is required!



Q25: What are the lead times for orders?

A25: FloorProtector works strictly on advance payment. Once payment has been received the order can be dispatched within 3 working days thereafter depending on stock availability. FloorProtector maintain a large stock and can handle large orders quickly. Order of more than 1,000 **fidbox**® units may be subject to a separate production run and therefore may require from 12 to 14 weeks for completion.

Q26: What are the delivery conditions for orders?

A26: FloorProtector supplies all materials based on ex-Works conditions. Freight per courier inclusive of insurance can be arranged upon request. Otherwise the buyer is responsible for collection, transport and insurance.

Q27: What happens in an urgent situation?

A27: When an urgent situation arises, you should contact your installer or parquet supplier and arrange a site meeting. You can speed up the process of finding a solution by providing digital photos and sending an explanation of what is happening that gives cause for concern.

If required, the installer will come to site and take a reading. This reading will give insight about historical happenings with the room climatic conditions and perhaps give an indication of cause. The operation of the readout device has been made as simple as possible and very easy to understand. If the installer cannot determine cause from the readings, he can send them to FloorProtector for evaluation and comment.

The data analysis BASIC is a printed report form that can be sent to you and the installer by the quickest way possible - via email or by similar means.

Q28: How do I get help if it is required?

A28: The first channel of help is your hardwood flooring supplier! If he cannot help send a mail to office@floorprotector.at, explain your situation in as much detail as possible and we will do our best to help.

