

# floor protector

## FAQ's

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## FAQ's

The most frequently asked questions

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## FAQ – Question Catalogue:

1. How is the fidbox installed or built-in?
2. How reliable and accurate are the fidbox measuring data?
3. What is the life expectancy of the fidbox?
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## Question:

How is the fidbox installed or built-in?

## Answer:

It requires only a few steps. In one detailed the laying instructions we explain very clearly illustrated with images, such as the fidbox measuring block is integrated functional.

1. Mill out the parquet element
2. Stick the fidbox in milled out section
3. Install the parquet
4. Finished

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 frequent area such as the living room. This is where you find the most intense temperature / humidity fluctuations.



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## Question:

How reliable and accurate are the fidbox measuring data?

## Answer:

The fidbox is equipped with two separate measuring sensors for the measurement of temperature in °C 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, separately from each other .

These measuring sensors are tested by independent testing and certified accordingly. During the testing, a so-called “long-term drift” is considered. These certificates are available in the German language and you can receive a copy upon request.

The accuracy deviations are as follows:

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

Testing according to: IOS / IEC 17025

Test Institute:

- NIST National Institute of Standards / Technology
- NLP National Physical Laboratory
- Leibniz University, Hannover, Germany
- Advanced technical college-Pinkafeld, Austria



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## Question:

What is the life expectancy of the fidbox?

## Answer:

The fidbox measurement element is suitable for measurement intervals of 1 minute up to 250 hours. The life expectancy refers to and is dependent upon the individually calibrated interval 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 8 hours as we recommend, then data can be measured and read for about 7.5 to 8 years.

A sample calculation:

By a measurement interval of 8 hours you will have 3 daily measurements. Annually  $365 \times 3 = 1095$  individual measurements and measurements after 8 years,  $1095 \times 8 \text{ years} = 8,760$  individual measurements.

Thereby a detailed long-term analysis of the events is created.





## Question:

Will the fidbox generate harmful radiation exposure?

## Answer:

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. Within the fidbox element a single microprocessor is used for date and time and for the stored measurement data.

A very 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 at the time when it is necessary to read the measurement data using a special handheld/readout device. This allows the stored data of the installed fidbox to be read out without causing any damage to the floor surface.

The measurable radiation produced exclusively during this reading process is classified as very low, thanks to the "RFID" technology (radio frequency technology). The limitations for this radiation is at 40 volts/meter. A cell phone send 70 volts/meter.

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



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## **Question:**

How is the data retrieved from the fidbox?

## **Answer:**

The readout of the built-in fidbox element has been designed as simple as possible. With a specially developed reading device, called a "handheld", the stored data can be wirelessly retrieved, non-destructively from the fidbox element and stored as required without any damage to the parquet.

The procedure:

For example, if a fidbox has been installed in the parquet flooring in your living room, we begin the search there. Our handheld sends out a search signal which is a slow "peep" sound. Once the fidbox is tracked by the wireless receiver, the search signal changes to a quick "peeping" sound.

The fidbox is located in the installed hardwood floors and can be read on your handheld quickly and easily.

Without destruction of the data and without difficulties.





## **Question:**

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

## **Answer:**

An installed fidbox measuring device can be read-out without any damage. A handheld reader device is required to achieve this read-out. For a small packing/shipping charge you can loan a reading device if necessary.

Having your own reading device definitely makes sense if you wish to establish the fidbox measurement technology as an active quality management system in their organization. The cost is attractive and you can have access using your own system at anytime needed and react immediately - without eventual delays, immediately read-out and immediate evaluation.



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## **Question:**

What happens in an urgent situation?

## **Answer:**

When an urgent situation arises, you agree a site visit with your client. At the same time you should order a reader from us to be able to read the data from the fidbox on site.

The operation of the readout device has been made as simple as possible and very easy to understand. Of course, your loaner is accompanied by a well-illustrated handbook showing each step.

All you need to do:

1. coordinate site visit with client
2. Request loaner
3. read data
4. Return loaner

The data analysis BASIC in printed report form will be sent to you by the quickest way possible - via email or by similar means. The report BASIC is without charge for you. The rental fee for the reading device is limited to packing / shipping costs for an insured parcel.





## **Question:**

What advantage does the fidbox bring me and what do I get from fidbox?

## **Answer:**

The advantages of use of a long-term data recording of temperature and relative humidity is clear and explicit.

Often the most critical situations occur within the warranty period that partially cause 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 agreements clearly and explicitly and to be able to make indisputable decisions.

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

We would gladly discuss with you in a personal interview, the special benefits that you can achieve for your business and your customers.

Unique - Secure – Non-Manipulatable

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## Question:

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

## Answer:

The use of a fidbox element is always a worthwhile investment. Use the fidbox element for active quality assurance and check, in fixed intervals over several years with your customers, 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 provide security for all parties.

Very positive is the argument "Heating curve analyze" when using underfloor heating. Already in the first heating season, the fidbox element can be evaluated. It is immediately apparent in what setting, which means 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 curve levels out – meaning it is slower in heating up and down - then you also reduce the need for heating requirement in total and naturally the overall heating costs.

The fidbox will pay for itself within the first year after installation. It's also has a high value for your client.



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## **Question:**

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

## **Answer:**

As a renowned specialized hardwood flooring company you are required already in the consulting phase to explain to your customers in detail about the required future care of the product in the form of a care recommendation.

A special duty to explain and therefore great attention is necessary in regards to 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 give when underfloor heating is present. The customer should know what to look for and thereby be in a position to identify negative developments that when detected early and can be countered immediately, before irreversible damage occurs.

For this reason it is very important to observe and analyze measuring data by certain developments in order to then make mutually the definite and clear decisions.

Ultimately this is also important in terms of healthy living and personal health.

We will gladly send you our supportive counseling protocol upon request.





## **Question:**

Can the fidbox be installed without the knowledge of the client?

## **Answer:**

Avoid unnecessary discussions and loss of client confidence. We always recommend that you propose the positive value for prevention 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. Ultimately, in the worst case, transparency is provided which is in the interest of your client.

In this way you will win on credibility with your client and secure his financial investment as his personal benefit.



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## **Question:**

Can I also sell the fidbox to my client?

## **Answer:**

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 ongoing 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.



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## Question:

Can the fidbox be defective?

## Answer:

We have included a detailed installation instruction in each package. 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.

fidbox-technical data:

Storage temperature:	- 40°C up to +71°C.
Operating temperature:	0°C up to +71°C.





## **Question:**

Is the fidbox accepted by Hardwood Inspectors?

## **Answer:**

Industry-known and judicially certified assessors and also guild board members of the European Parquet Association recommend the sustainable use of fidbox for obtaining relevant data. (see below).

The fidbox provides very accurate and reliable long-term data records over long periods of time that the hardwood 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 can not replace an expert evaluation in the event of a problem. The goal is to assist a mutual analyze with all parties as to the causes and determination of the best possible solutions.

We will gladly assist you if you have any further questions.

The Central European Association of Parquet and court-appointed expert hardwood inspectors will gladly provide you more information:

[www.zv-parkett.de](http://www.zv-parkett.de)



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## **Question:**

Will the fidbox analysis be accepted by the courts?

## **Answer:**

Ultimately, the public or court appointed hardwood 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 inspector can now prove his analysis with long-term data records that show the events leading up to the damage. This provides the judicial authority with a credible tool and a clearly understandable decision aid.

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.

Temperature 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 extent.





## **Question:**

Is there information about quality assurance?

## **Answer:**

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. Certainty is Certain!

On request, we will gladly show you the results.

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## **Question:**

Are the Hardwood Inspectors familiar with the evaluations?

## **Answer:**

Basically, the public or court-appointed hardwood 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 is necessary, the fidbox team is available.

On request, we will gladly send you the names and addresses of renowned hardwood inspectors who are familiar with the fidbox system.

If you talk to a hardwood inspector that does not know the fidbox system, we will gladly contact him direct and offer the best possible support.

Contact us.

[office@floorprotector.at](mailto:office@floorprotector.at)

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## Question:

Are conclusions about indoor environment possible with the fidbox?

## Answer:

Parquet 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, it releases it 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 interdependent 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 inspectors interpretation and support.





## Question:

What other applications are available?

## Answer:

The fidbox measurement system that we have developed is very flexible. With the ability to read the stored data wirelessly even hardly accessible constructions can be monitored safely and easily analyzed.

Some applications:

- In installed parquet
- Monitoring the initial heat-up phase of underfloor heating
- In access or cavity floor construction
- In suspended acoustic ceilings
- In high quality built-in ceilings
- In drywalls
- In roof insulation
- In wall façade insulations
- For moisture analysis in historical buildings
- Climate measurement in museum or specific Exhibits
- Further expert testing

There is a wide range of applications for the fidbox which we would gladly further discuss with you. Contact us.





## **Question:**

Can I test the fidbox without obligation?

## **Answer:**

We would enjoy the opportunity to explain the performance spectrum of the fidbox measurement technique personally. We will convince you of the specific benefits you can achieve for your business.

Try us. Check internally how easy it can be installed, how applicable our technique is for you and how practical it is. See for yourself with a detailed analysis of a test-building project that you personally select.

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## Question:

How do you help in urgent situations?

## Answer:

We are happy to be available for any questions on the fidbox.

Contact us for:

- Consultation on site
- Installation recommendations
- Loan device for measuring data reading
- Data analysis
- Hardwood inspector recommendations
- Events
- Presentations

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