

## GUIDELINES FOR THE INSTALLATION AND USE OF HD MINERAL CORE FLOORING WITH UNDERFLOOR HEATING SYSTEMS.

### 1. INSTALLATION OF FLOORING WITH UNDERFLOOR HEATING SYSTEMS EMBEDDED IN THE SUBSTRATE

#### Types of underfloor heating embedded in the substrate for flooring with an HD MINERAL CORE

Flooring with an HD Mineral Core may be used with low-temperature underfloor heating systems of the following types:

- Water-based heating
- Electric heating embedded in a cement screed, anhydrite screed, etc.

provided that the maximum surface temperature of the floor does not exceed 27°C.

!!!Installation of panels on water-based underfloor heating systems constructed using dry technology is not permitted!!!

#### Floor Installation Guidelines

In the case of underfloor heating, the type of screed and the installation method must comply with the instructions provided by the manufacturer of the screed and the underfloor heating system.

The depth at which the heating elements are embedded is determined by the underfloor heating installer in accordance with the guidelines of the underfloor heating manufacturer – nevertheless, the thickness of the screed should be at least 35 mm above the heating pipes (cables).

To ensure even heat distribution across the floor surface, the distance between heating elements must not exceed 30 cm.

Check the moisture content of the substrate throughout its entire thickness. The maximum moisture content determined using the CM method is 1.8% for cement screeds and 0.3% for anhydrite screeds.

In the case of installation in new buildings, these values can be obtained by starting the underfloor heating in accordance with the guidelines of the screed and underfloor heating manufacturers, especially regarding the gradual increase of temperature and the heating period.

The temperature in the room where the floor is being installed must be between 18–30°C, with a minimum substrate temperature of 15°C. If the temperature deviates from the specified values, the underfloor heating should be turned on at 50% until the required temperature is reached.

The underfloor heating must be turned off 24 hours before installation.

Expansion joints are required between heated and unheated areas or between heated surfaces with separate temperature controllers.

#### Floor Usage Guidelines

After the panels have been installed, wait another 24 hours and gradually turning on the underfloor heating (maximum 5°C per day, increasing the temperature gradually no faster than 0.5°C every 2 hours).

The floor heating process must be confirmed with a floor heating protocol signed by the installer. Failure to provide a signed protocol will result in the loss of warranty.

Warning! At the beginning of the heating season, as well as after any shutdown of the underfloor heating system for more than 24 hours, the floor heating process should be repeated.

The underfloor heating must be used while maintaining the maximum allowable floor surface temperature of 27°C. Exceeding this temperature may result in permanent damage to the flooring.

Therefore, it is required to place a thermal seal under the floor, under penalty of losing the floor warranty. The seal should be installed directly above the underfloor heating system, but in a location not exposed to direct sunlight, such as near a window. It is important to note that in the event of a potential warranty claim, the removal of the floor above the thermal seal may be required in order to read the temperature from the seal. For this reason, it is recommended to position the seal near a wall or at the end of the floor.

Do not allow heat accumulation caused by rugs or carpets, or by leaving insufficient space between furniture and the floor.

WARNING! Failure to comply with the provided guidelines will result in the loss of the floor warranty.

## 2. INSTALLATION OF FLOORING WITH UNDERFLOOR HEATING SYSTEMS LAID ON THE SURFACE OF THE SUBSTRATE

### Types of underfloor heating laid on the surface of the substrate for flooring with an HD Mineral Core

For floors with HD Mineral Core manufactured in Poland (EU), the installation of IR heating films is permitted as a low-temperature underfloor heating system with a maximum output of 80W. The specific floor collections with HD Mineral Core for which the installation of heating films is allowed are clearly marked in the installation instructions.

The installation of flooring over heating mats with electric cables as the heating element is not permitted due to the uneven surface of the heating system and the risk of damage to the locking system. Such installation will be carried out at the sole risk of the purchaser or installer and will result in the loss of warranty.

For proper floor installation, the following components must be laid in the specified order:

1. Aquaprotec vapor barrier foil with an SD value of at least 75m
2. 5 mm floor underlay with a minimum CS value of 400kPa
3. IR heating film
4. Aquaprotec vapor barrier foil with an SD value of at least 75m
5. Click-system flooring with an HD Mineral Core

A condition for obtaining the extended manufacturer's warranty for flooring panels with **HD Mineral Core** is the use of dedicated materials and adherence to the complete installation procedure, which includes:

- the use of **Arbiton** floor underlay,
- the use of **Aquaprotec** vapor barrier foil,
- the use of authorized heating film systems.

The list of authorized heating film systems is available on the flooring manufacturer's website.

The method of installing the IR heating film must comply with the instructions provided by the underfloor heating system manufacturer.

The method of laying the heating films, the use of components connecting individual film strips, and the controllers must comply with the instructions of the underfloor heating system manufacturer.

To maintain the warranty and guarantee for the flooring, only vapor barrier foils and underlays from the flooring manufacturer are permitted, which must be confirmed with the appropriate purchase documents.

### Floor Usage Guidelines

After the panels have been installed, wait another 24 hours and gradually turning on the underfloor heating (maximum 5°C per day, increasing the temperature no faster than 0.5°C every 2 hours).

The floor heating process must be confirmed with a floor heating protocol signed by the installer. Failure to provide a signed protocol will result in the loss of warranty.

**Warning!** At the beginning of the heating season, as well as after any shutdown of the underfloor heating system for more than 24 hours, the floor heating process should be repeated.

The underfloor heating must be used while maintaining the maximum allowable floor surface temperature of 27°C. Exceeding this temperature may result in permanent damage to the flooring.

Therefore, it is required to place a thermal seal under the floor, under penalty of losing the floor warranty. The seal should be installed directly above the underfloor heating system, but in a location not exposed to direct sunlight, such as near a window. It is important to note that in the event of a potential warranty claim, the removal of the floor above the thermal seal may be required in order to read the temperature from the seal. For this reason, it is recommended to position the seal near a wall or at the end of the floor.

Do not allow heat accumulation caused by furniture or fixed installations; in this regard, strictly follow the instructions provided by the heating film manufacturer.

**WARNING!** Failure to comply with the provided guidelines will result in the loss of the floor warranty.