

## Mi-Heat 469-001

# Mi-Heat 17/5 Black Heating Mat 150 W/m<sup>2</sup> Instruction Manual

Model: 469-001

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Mi-Heat 17/5 Black Heating Mat. This heating mat is designed for efficient electric underfloor heating, suitable for various indoor and outdoor applications, including bathrooms, kitchens, greenhouses, and industrial halls.

The Mi-Heat 17/5 Black Heating Mat features a unique product technology that ensures superior heat distribution compared to systems with round heating cables. Its flat, wide heating conductor provides a five times larger heat dissipation surface. Combined with a close loop distance of approximately 5 to 6 cm, this system offers uniform and rapid heating of the floor covering.

## 2. PRODUCT FEATURES

- **Efficient Heating:** 150 W/m<sup>2</sup> output with a 17mm wide Twin heating conductor for superior heat distribution and faster heating times.
- **Easy Installation:** Flat heating cable fixed on a self-adhesive fiberglass mesh for simplified laying and stabilization.
- **Uniform Heat:** Close loop distance of 5-6 cm ensures even and rapid heating of the floor.
- **Low Electromagnetic Radiation:** Utilizes Twin-Technology for reduced electromagnetic fields.
- **Durable Design:** Features a polypropylene protective sheath and a flat, corrosion-proof transition sleeve.
- **Versatile Application:** Suitable for various floor coverings including ceramic, tile, natural stone, concrete, marble, screed, and granite. Can be used indoors and outdoors.
- **Safety Rated:** IPX7 protection rating.
- **Connection Cable:** Includes a 4.5m connection cable.



*Image: Shielded Twin Heating Cable (Two-wire)*



*Image: Loop distance approximately 5-6 cm*



*Image: Self-adhesive carrier fabric*



*Image: Flat and corrosion-proof transition sleeve*

### 3. SAFETY INSTRUCTIONS

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- Installation must be carried out by a qualified electrician in accordance with local electrical codes and regulations.
- Ensure the power supply is disconnected before beginning any installation or maintenance work.
- Do not cut or damage the heating cable. Only cut the fiberglass mesh as instructed for shaping the mat.
- The heating mat must be fully embedded in a suitable leveling compound or tile adhesive. Do not leave any parts exposed.
- Always use a temperature controller (thermostat) equipped with a temperature limitation, not exceeding +30°C, to prevent overheating and ensure safe operation.
- Avoid placing heavy objects with sharp edges directly on the heating mat before the floor covering is fully cured.
- Do not install the heating mat under fixed furniture without legs (e.g., kitchen cabinets, bathtubs) or appliances that would prevent heat dissipation.
- Keep the heating mat dry during installation until it is fully covered.

### 4. SETUP AND INSTALLATION

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Proper installation is crucial for the performance and longevity of your Mi-Heat heating mat. Follow these steps carefully.

#### 4.1 Preparation

- Ensure the subfloor is clean, dry, level, and free from sharp objects.

- Plan the layout of the heating mat to cover the desired area, avoiding areas under permanent fixtures.
- Install a suitable thermal insulation layer beneath the heating mat to minimize heat loss downwards.
- Install the floor sensor for your thermostat according to the thermostat manufacturer's instructions. The sensor should be placed centrally between two heating cables.

## 4.2 Laying the Heating Mat

1. Begin unrolling the Mi-Heat heating mat from one end of the room. The self-adhesive mesh will help secure it to the subfloor.
2. When you reach a wall or need to change direction, cut the fiberglass mesh *(do not cut the heating cable)* and turn the mat to continue laying in the new direction. This allows you to shape the mat to fit the room's contours.
3. Ensure the heating cables are evenly spaced and do not overlap. Maintain the specified loop distance of 5-6 cm.
4. The cold lead (connection cable) should be routed to the thermostat connection box.
5. After laying, inspect the mat for any damage to the heating cable. It is recommended to perform an electrical resistance test before and after covering the mat.



*Image: Mi-Heat Black Heating Mat, partially unrolled. This image shows the mat's construction with the heating cable attached to the mesh.*



*Image: Mi-Heat Black Heating Mat unrolled with its connection cable. This illustrates the mat ready for installation.*

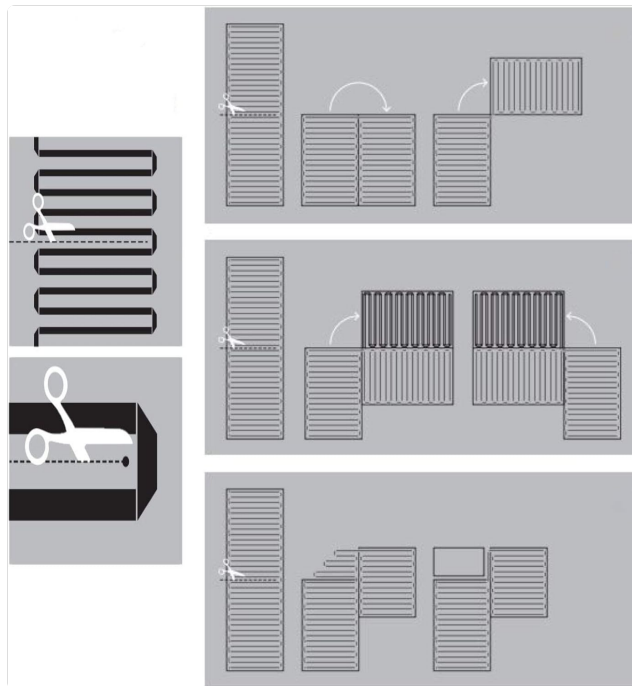


Image: Diagram illustrating how to cut the fiberglass mesh (not the heating cable) to turn and shape the heating mat around obstacles or to change direction during installation.

### 4.3 Covering the Heating Mat

- The heating mat can be embedded directly into tile adhesive, self-leveling mortar, or screed.
- Apply the chosen covering material carefully, ensuring no air pockets are trapped around the heating cables.
- Ensure the entire heating mat, including the transition sleeve, is fully encapsulated by the covering material.
- Allow the covering material to cure completely according to the manufacturer's instructions before applying the final floor covering or switching on the heating system.

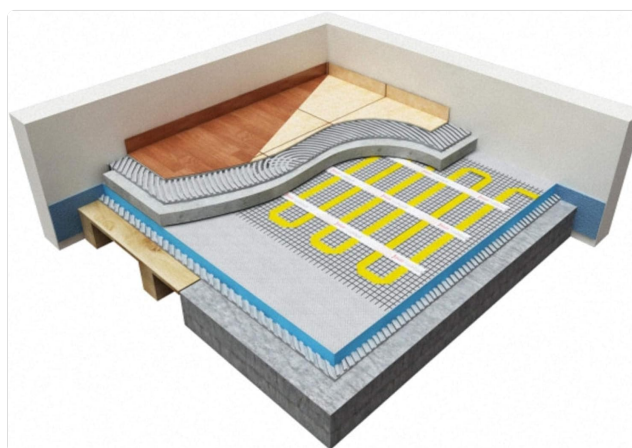


Image: Cross-section diagram showing the heating mat installed within the floor layers, beneath the final floor covering.

## 5. OPERATING INSTRUCTIONS

The Mi-Heat 17/5 Black Heating Mat must be operated with a suitable temperature controller (thermostat). The thermostat regulates the floor temperature and ensures efficient and safe operation.

- **Thermostat Requirement:** Always use a thermostat that includes a temperature limitation function. The maximum floor temperature should be limited to +30°C to prevent damage to floor coverings and ensure user comfort and safety.

- **Initial Startup:** After the floor covering material has fully cured (refer to the adhesive/screed manufacturer's guidelines, typically 7-28 days), you can switch on the heating system.
- **Temperature Setting:** Set your desired floor temperature using the thermostat. Refer to your thermostat's specific instruction manual for detailed programming and operation.
- **Energy Efficiency:** For optimal energy efficiency, consider programming your thermostat to reduce temperature during unoccupied periods or at night.



*Image: Examples of compatible thermostats. A thermostat is required to control the heating mat and limit the floor temperature.*

## 6. MAINTENANCE

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The Mi-Heat 17/5 Black Heating Mat is designed to be maintenance-free once properly installed and covered. No regular servicing or inspection of the heating mat itself is required.

- Ensure your thermostat is functioning correctly and its settings are appropriate for your comfort and floor covering.
- Avoid drilling or nailing into the floor where the heating mat is installed to prevent damage to the heating cables.

## 7. TROUBLESHOOTING

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If your heating system is not functioning as expected, consider the following common issues:

- **No Heat:**
  - Check if the thermostat is switched on and set to a temperature above the current room/floor temperature.
  - Verify the circuit breaker for the heating system has not tripped.
  - Ensure the thermostat's floor sensor is correctly installed and functioning.
- **Uneven Heating:**
  - This is rare with properly installed mats. Ensure no furniture or rugs are blocking heat dissipation in specific areas.
  - Verify the mat was laid correctly without overlapping cables.
- **Thermostat Error:**
  - Refer to your thermostat's specific instruction manual for error codes and troubleshooting steps.

For persistent issues, it is recommended to contact a qualified electrician or the product manufacturer for assistance.

## 8. SPECIFICATIONS

Feature	Specification
Brand	Mi-Heat
Model Number	469-001
Heating Output	150 W/m <sup>2</sup>
Heating Cable Type	Twin heating conductor, 17mm wide
Loop Distance	Approx. 5-6 cm
Protection Rating	IPX7
Protective Sheath	Polypropylene
Connection Cable Length	4.5 m
Manufacturer	infrarot-fussboden-de
Country of Origin	Europe (Manufactured in Europe)

## 9. WARRANTY AND SUPPORT

Specific warranty information for this product is not available in the provided details. Please refer to your purchase documentation or contact the seller, infrarot-fussboden-de, for warranty terms and conditions.

For technical support or further inquiries, please contact the manufacturer or your point of purchase. Always provide your model number (469-001) and purchase date when seeking support.

