



## Product Information and Safety Instructions

### » Installation of the EMI III Image Analysis Upgrade

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#### 1 Validity

This document applies to **Hesse Instruments'** **EMI III** image analysis upgrade, if the upgrade is installed at an existing **Hesse Instruments** heating microscope and the installation is carried out by the customer.

#### 2 First steps

- ▶ Read this document completely and carefully.
- ▶ Check the delivery of the **EMI III upgrade** for external defects.
- ▶ Unpack the delivery and, using the provided installation manual, check if it is complete.
- ▶ Check all components of the upgrade for external defects.
- ▶ Before installing the upgrade, make sure that all environmental requirements are met.
- ▶ Before installing the upgrade, make sure that you are sufficiently qualified.
- ▶ Install the upgrade according to the provided installation manual.
- ▶ Before operating the heating microscope, read its product information and safety instructions.

#### 3 Product description

The purpose of the **EMI III** image analysis upgrade with is to upgrade an existing heating microscope with the **EMI 2** software to a version with the new **EMI III** software.

For the operation of **EMI III**, new hardware components for the heating microscope are required, which are included in the upgrade's scope of delivery. This includes a network-compatible CCD camera and a temperature acquisition device.

#### 4 Scope of delivery

- ... **EMI III** heating microscope software
- ... Pre-configured measuring station computer with Windows operating system, **EMI III** heating microscope software, keyboard and mouse
- ... Network-compatible CCD camera
- ... New temperature acquisition device for the existing furnace control

#### 5 Environmental requirements

During storage and operation, the components of the upgrade must be protected from dust, dirt, water, etc.

- ... Operating temperature range: 15 °C ... 35 °C
- ... Allowable storage temperature: -10 °C ... +60 °C
- ... Relative humidity: Maximal relative humidity 70 % for temperatures up to 30 °C; linear decrease to 50 % relative humidity at 35 °C.

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▲ **Hesse Instruments** does not assume liability for damages that are caused by unfulfilled environmental requirements during storage or operation of the upgrade.

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## 6 Intended use

The **EMI III** image analysis upgrade is designed for heating microscopes, which were produced by **Hesse Instruments**. Upgraded heating microscopes are used to carry out heating microscope measurements for the thermo-optical analysis of solid bodies, e.g. the sintering, deformation and melting behaviour.


- ▶ During the installation and adjustment of the upgrade, stick to the instructions and specifications as described in the provided installation manual!
- ▶ Do not use the upgrade for other purposes without consulting **Hesse Instruments** first.


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▲ **Hesse Instruments** does not assume liability for damages that result from an incorrect installation or adjustment of the upgrade.

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## 7 Safety instructions

Warning	
	Hot surfaces Danger of burning at furnace and specimen holder! <b>Check the temperature before touching the components!</b> <b>Only touch the surfaces, if they have cooled down sufficiently!</b>

Warning	
	Casings contain live electrical components Danger of electric shock! <b>Do not open casings of furnace control, transformer and furnace!</b>

Attention	
	Destruction of components possible! <b>The upgrade must only be installed by qualified personnel!</b>

## 8 Personnel qualification

The qualification for installing the upgrade is the basis for a safe installation and an intact and working instrument. In order to find out, if you are sufficiently qualified for the installation of the upgrade, check the section about the target user group in the provided installation manual.

- ▶ For further information and detailed instructions for the installation of the upgrade, read the provided installation manual for the **EMI III** image analysis upgrade.

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▲ **Hesse Instruments** does not assume liability for damages that result from an incorrect installation of the upgrade.

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## 9 Installation


The installation of the upgrade and the adjustment of the heating microscope are described step-by-step in the provided installation and adjustment manuals. Both are delivered with the upgrade in printed form or on the software DVD.

- ▶ During the installation and adjustment of the upgrade, stick to the instructions and specifications as described in the provided manuals!

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▲ **Hesse Instruments** does not assume liability for damages that result from an incorrect installation of the upgrade.

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Attention	
	Destruction of components possible! <b>The upgrade must only be installed by qualified personnel!</b>

## 10 Windows backup image

- ▶ Create a DVD with a backup image of your Windows operating system (OS), which you can use to restore the OS, if it or the hard drive crash.

## 11 Technical documentation / help

The following documents are delivered with the upgrade in printed form or on the software DVD and can be found on our website:

- ... Product Information and safety instructions for the **EMI III** image analysis upgrade.
- ... Product Information and safety instructions for the heating microscope.
- ... Application notes with background information and illustrated step-by-step instructions for the operation of the heating microscope.
- ... Instruction manuals for the **EMI III** heating microscope software and for the **EPA** furnace control.
- ... Adjustment manual for the **EM301** heating microscope.

Additionally, you find the instruction manual for the **EMI III** software in the software module **Help ?**.

For further support please contact **Hesse Instruments'** customer service under [cservice@hesse-instruments.de](mailto:cservice@hesse-instruments.de) or +49 (0) 5522 / 75750.