

Phases



The dhs Phases Analysis module uses so-called “greyscale detection” (phase analysis) to enable **automatic detection, calculation and visualisation of area ratios.**

Detection

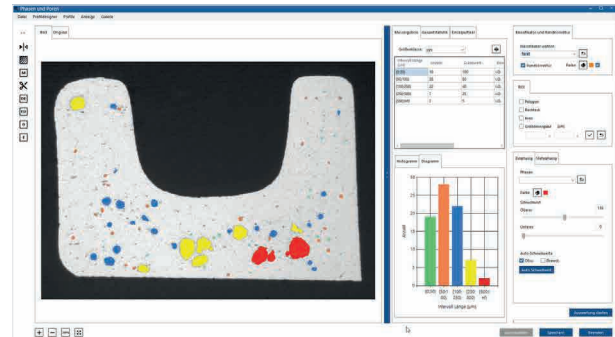
The different **colours** of the micrographic analysis (structural constituents) are converted into **greyscale values** and analysed in up to 10 phases per ROI.

Each phase determines the following values automatically:

- Absolute area
- Area %
- Number of particles
- Input and display of limit values (referred to the absolute area or the percentage area, or number of particles)
- Evaluation ok / not ok (text can be defined)

There is a bar in the results diagram for each phase; colours are allocated in advance. The **analysis results** are displayed immediately:

- **Percentage area ratio**
- **Nominal value** in the relevant unit of measurement



Visualisation

The individual phases and their proportional distribution are directly visualised on-screen in the previously defined layer colour in **real time.**

Information at a glance

- Analysis of area ratios in micrographic images via greyscale detection
- Depiction and determination of limit values
- ROI (as a circle, rectangle, freehand)
- All software settings can be saved in profiles and re-accessed
- Simple integration of the measurement results in the database
- Enhanced option with functions for determining porosity, for comprehensive particle analysis

Features

- When the limit value is exceeded, the bar colour changes to the limit colour.
- The **ROI (Region of interest)** is selected with a rectangle, circle or polygon
-> a standard size can be saved in the profile for
 a circle or rectangle
-> ROI can be moved in any direction
- **Image zoom** with mouse or scroll wheel
- Mirror image (horizontal / vertical)
- **Edge correction** by means of edgeboard contact
- **Erosion / dilatation for removing unwanted image fragments**
- **Setting options can be saved in profiles and reproduced**
- Whole profile can be saved via all settings
- Automatic threshold for one-phase analyses

Result depiction / Documentation

The **result table** is exported into **MS Excel™** at the press of a button – a **bar chart** is created **automatically** and the resolution and font size can be adjusted individually.

All three tables (result, statistics, individual particles) are saved in the database. A field is written in the database for each phase:
phase index, phase name, number of particles, area, percentage area ratio, colour, limit-value reference, limit value, evaluation, phase limit

Enhanced option

The Phase Analysis module is also designed to determine porosity. With the **enhanced option**, you receive the **complete functional scope for particle analysis** of area ratios and size classes according to the area of application – get in touch with us!

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