

# Micro-CT Low Contrast Phantom

**As a useful tool for evaluation of contrast detectability the MicroCT Low Contrast Phantom provides four inserts of two different contrast levels, each in two different**

The MicroCT Low Contrast Phantom is a cylindrical phantom in which small details (cylindrical inserts) at a specified contrast with respect to the background allow for an estimation of the low-contrast resolution of a Micro-CT scanner.

The difference in CT-numbers (HU) can be as low as -40 HU and -80 HU, respectively<sup>[1]</sup>. Actual values vary slightly depending on scanner geometry, calibration and tube voltage.

## Specifications

Base material ..... resin

Low contrast inserts:

Diameter ..... 1 mm / 2.5 mm  
approx. contrast ..... -4 % / -8 %

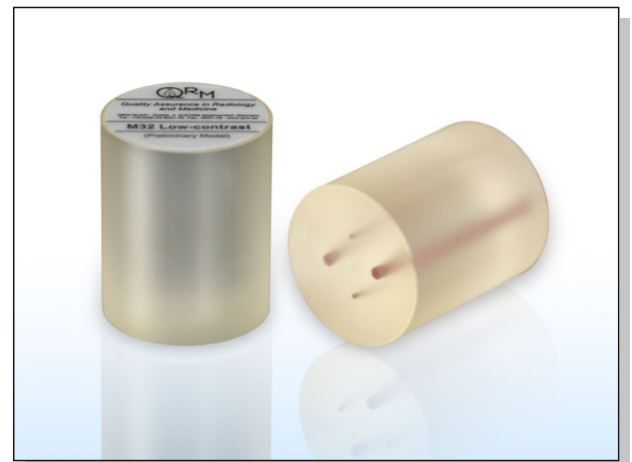
Dimensions for mouse-size phantom:

Diameter ..... 32 mm  
Length ..... 40 mm  
Weight ..... 35 g

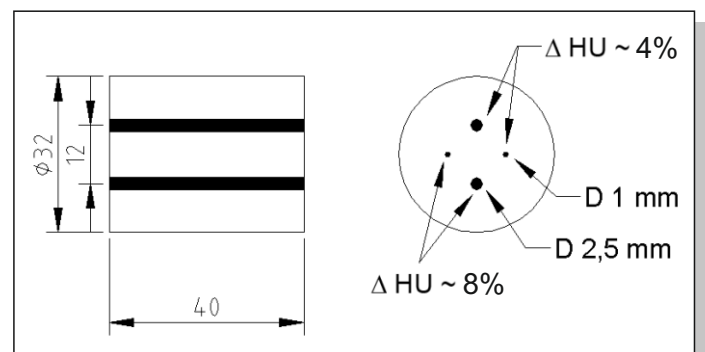
Other dimensions and contrast steps upon

## References:

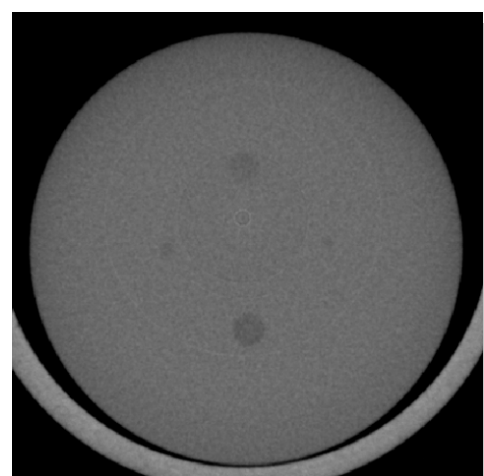
[1] Kalender, W., Durkee, B., Langner, O., Stepina, E., Karolczak, M.: Comparative Evaluation: Acceptance Testing and Constancy Testing for Micro-CT Scanners. Biomedizinische Technik 50 (2005), 1192-1193



*Micro-CT Low Contrast Phantom*



*Schematic drawing of the Phantom*



*Micro-CT scan of the phantom*

# Micro-CT Low Contrast V2 Phantom

The QRM-MicroCT-LC V2 Phantom can be used to evaluate the low contrast detectability of a micro-CT system.

The MicroCT Low Contrast Phantom is a cylindrical phantom that houses multiple small details (cylindrical inserts) at a specified contrast to background ratio. It allows the estimation of the low-contrast capabilities of micro-CT scanners.

The phantom provides three low contrast levels at -3%, -6% and -9% relative to background. To estimate the low contrast detectability of a system the inserts are also provided in three different diameters, 1mm, 2mm and 3 mm respectively.

## Specifications

Base material ..... resin

Low contrast inserts:

- diameter ..... 1, 2 and 3 mm
- approx. contrast ..... -3 % / -6 % / -9%

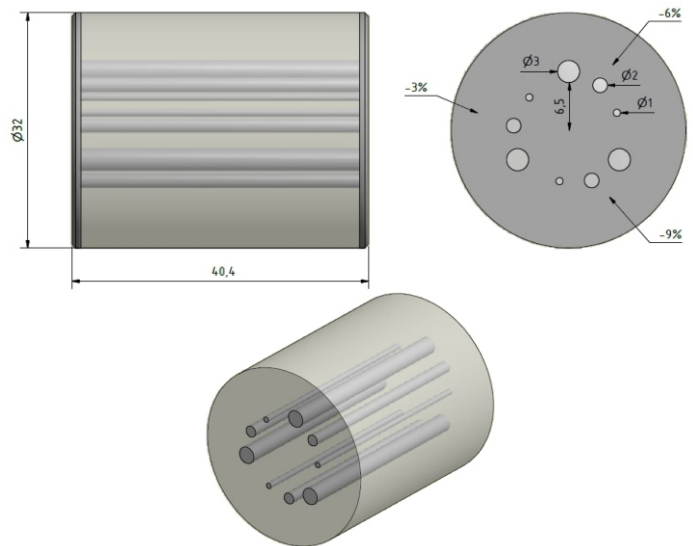
Dimensions for mouse-size phantom:

- diameter ..... 32 mm
- length ..... 40 mm
- weight ..... 35 g

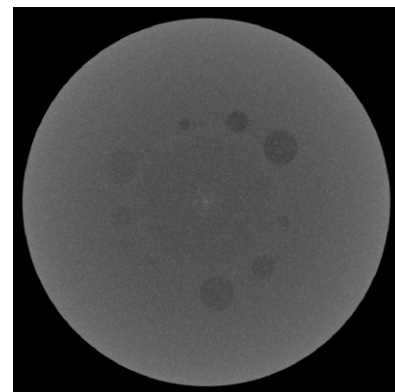
Other dimensions and contrast steps upon request: [info@qrm.de](mailto:info@qrm.de)



Micro-CT Low Contrast Phantom V2



Schematic drawing of the Phantom



Max. Intensity Projection (MIP) of a micro-CT scan