

# Mammo **FFDM**<sup>™</sup> Phantom

## Designed with the American College of Radiation (ACR) to test FFDM system performance

- ACR Digital Mammography Phantom
- Detect microscopic objects that mimic small structures in the breast
- Evaluate artifacts over the entire detector with a single image
- Reduce backscatter and equalize attenuation<sup>1</sup>
- Comply with EUREF<sup>2</sup>, MQSA and ACR



The Mammo FFDM Phantom is the new ACR accreditation phantom for quality assurance (QA) in digital mammography (DM). It was developed in cooperation with Gammex, the innovators behind the ACR Mammography Phantom (Mammo 156<sup>™</sup> Phantom)—the gold standard QA solution for breast health.

#### Gain Efficiencies and Image Quality

Perform image quality, artifact detection, uniformity and Contrast to Noise Ratio (CNR) tests using the same window width (WW) and window level (WL).

The Mammo FFDM Phantom simulates radiographic characteristics of compressed breast tissue, including micro-calcifications, ductal fibrous structures and tumor-like masses. Identification of these small structures is essential to the early detection of breast cancer.



Mammo FFDM Phantom Wax Insert

Ensure detection of the smallest structures with regular use of the Mammo FFDM Phantom.

This phantom includes a user manual and 5-year warranty.

<sup>1</sup>http://www.acraccreditation.org/Modalities/Mammography <sup>2</sup>European protocol for the quality control of the physical and technical aspects of mammography screening v2.



#### **Maintain Accreditation**

The Mammo FFDM Phantom permits testing of the MQSA 3.0 mGy dose limit. Attenuation is equalized inside and outside the wax insert. The test objects are designed and located per the ACR specifications, including the nylon polyamide fibers, spherical glass specks and the spherical cap masses.

### Wax Insert Test Object Specifications

Fiber Diameter (mm)	Speck Diameter Glass Sphere, (mm)	Mass Thickness (mm)
0.89 ± 0.05	0.33 ± 0.0100	$1.00 \pm 0.05$
0.75 ± 0.03	0.28 ± 0.0083	$0.75 \pm 0.05$
0.61 ± 0.03	0.23 ± 0.0069	$0.50 \pm 0.05$
0.54 ± 0.03	$0.20 \pm 0.0059$	$0.38 \pm 0.04$
0.40 ± 0.03	0.17 ± 0.0084	$0.25 \pm 0.03$
0.30 ± 0.03	0.14 ± 0.0070	$0.20 \pm 0.02$

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### **Specifications per ACR Requirements**

Dimensions (L/W/H):	$31.0 \pm 0.1 \times 19 \pm 0.1 \times 4.1 \pm 0.03$ cm
Dimensions: Wax Insert (L/W/H):	12.98 (+ 0, - 0.04) x 6.98 (+0, -0.04) x 0.7 ± 0.02 cm
CNR Cavity Depth:	0.1 ± 0.005 cm
CNR Diameter:	± 0.05 cm
Compensator:	9 mil Polyvinylidene Chloride



#### Mammography & Tomosynthesis QA Tools

Choose from kits that include everything you need for routine QA and acceptance testing. Or select from a Tomosynthesis phantom, breast biopsy training phantoms, a breast compression test device and other QA tools.

