

Mammography BR3D Phantom



For Tomosynthesis and Breast CT

The CIRS Model 020 BR3D Mammography Phantom was designed to assess detectability of various size lesions within a tissue equivalent, complex, heterogeneous background. This phantom provides more realistic challenges for standard screen and FFDM mammography systems as well as Tomosynthesis and breast Computed Tomography.

The phantom consists of a set of six (6) slabs made of heterogeneous breast equivalent material that exhibits characteristics of real breast tissue and demonstrates how underlying targets can be obscured by varying glandularity. Each slab contains two tissue equivalent materials mimicking 100% adipose and gland tissues “swirled” together in an approximate 50/50 ratio by weight. One of the slabs contains an assortment of micro-calcifications, fibrils and masses.

Each semicircular shaped slab measures 100 (H) x 180 (L) x 10 mm (T). Each slab, with its unique swirl pattern, provides varying backgrounds when arranged in multiple combinations and thicknesses.



Model 020

Benefits

- Tests Tomosynthesis and Breast Computed Tomography
- More representative than standard homogenous phantoms
- Complex background provides greater challenge for target detection
- Slab configurations provides range of thicknesses with or without targets

Model 020

Specifications:

BACKGROUND SLAB

MATERIAL

Epoxy resin: equivalent to 50% glandular / 50% adipose tissue

Size: 100 (H) x 180 (L) x 100 mm (T),
semicircular shape

Quantity: (5) five slabs



TARGET SLAB

LESIONS (CaCO₃ specs)

Grain size: 0.130, 0.165, 0.196, 0.230,
0.275 & 0.400 mm

SPHEROIDAL MASSES

MATERIAL

Epoxy resin: 75% glandular / 25% adipose,

Diameters: 1.80, 2.38, 3.18, 3.96,
4.76 & 6.32 mm

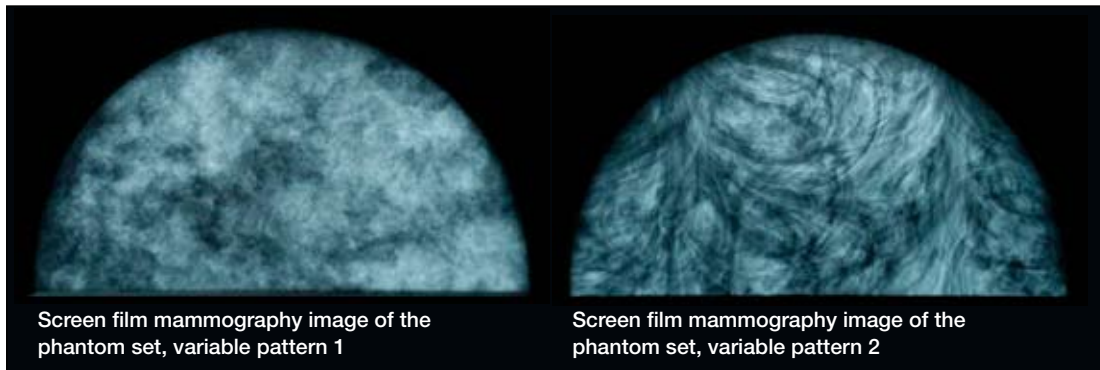
Fibers: 10 mm length

Diameters: 0.30, 0.53, 0.71, 0.83 & 1.25 mm

Quantity: (1) one slab

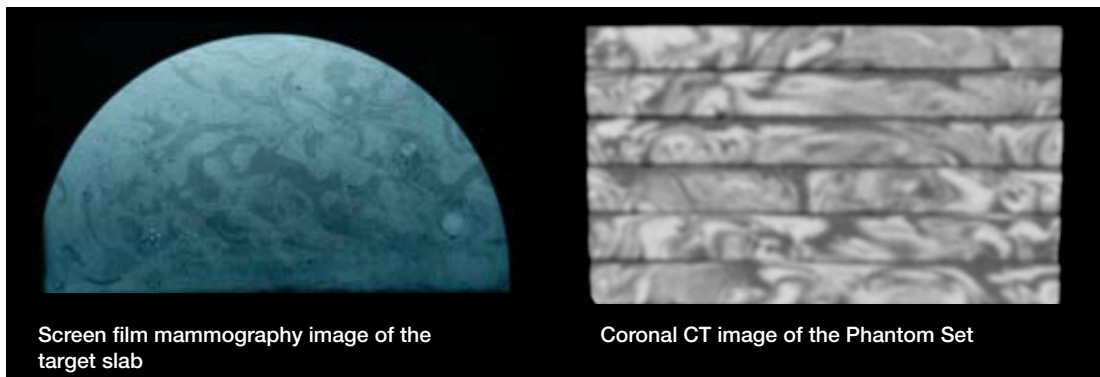
PHANTOM INCLUDES

Handling Instructions and 6 Month Warranty



Screen film mammography image of the phantom set, variable pattern 1

Screen film mammography image of the phantom set, variable pattern 2



Screen film mammography image of the target slab

Coronal CT image of the Phantom Set