

Sono403™ Multi-Purpose Phantoms

Ensure accurate screening,
diagnosis and monitoring.

- Perform efficient QA testing of ultrasound systems and transducers
- Use across a variety of applications, including General Radiology, Musculoskeletal, Cardiology, Emergency, Pediatrics, Radiotherapy and Surgical
- Helps you exceed ACR, ECR, AIUM and other international program requirements



Sono403 Phantoms, with patented HE (High Equivalency) Gel™, provide advanced technology for measuring image quality of small parts and intra-cavity ultrasound scanning systems.

The Sono403 family offers:

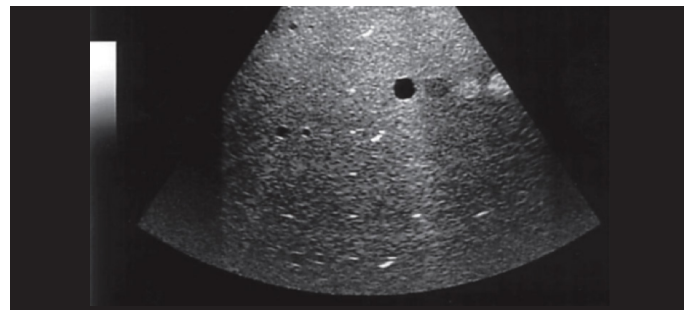
- A near-linear response of attenuation-to-frequencies between 2 to 18 MHz, due to our HE Gel
- Response of attenuation-to-frequencies over 8 MHz to support accurate axial resolution and penetration depth representative of human tissue^{1,2}

Performance measures:

- Image uniformity
- Artifact survey
- Axial and lateral resolution
- Horizontal and vertical distance
- Dead zone
- Depth of penetration
- Signal-to-noise ratio
- Anechoic and echogenic mass resolution
- Gray scale contrast resolution

"The tissue-like properties in Gammex ultrasound phantoms make them ideal for testing the performance of scanners."

James A. Zagzebski, Ph.D., FAAPM
Professor Emeritus, Retired Chair
Department of Medical Physics,
Wisconsin Institutes for Medical Research



Our proven SONO403 Phantoms have precision-placed targets and zero defects.



Sono403 Multi-Purpose Phantoms

- Designed for QA testing of ultrasound systems and transducers in General Radiology, Musculoskeletal, Cardiology, Emergency, Pediatrics, Radiotherapy and Surgical applications
- HE Gel can be rejuvenated and your phantom re-validated any time to strengthen your investment
- HE Gel is very uniform and has a nonlinearity parameter (B/A) that is equivalent to human liver

Specifications

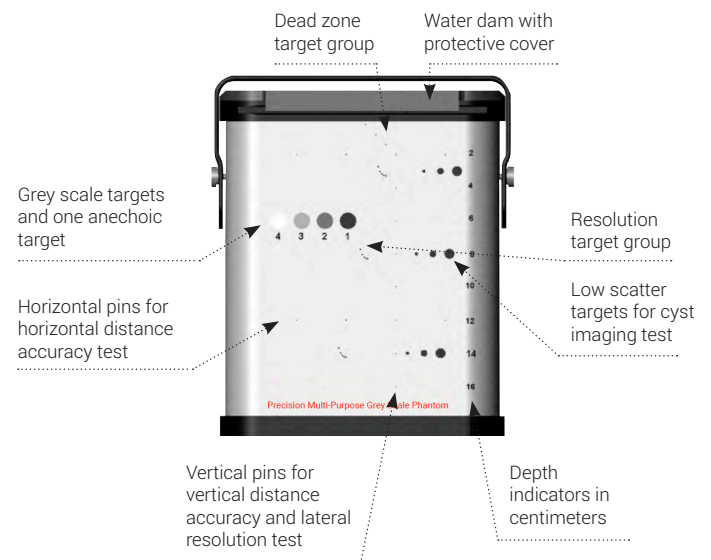
HE Gel™: Gammex's multi-frequency tissue mimicking material

Attenuation Coefficient ¹ :	0.5 or 0.7 dB/cm/MHz
Variation of Attenuation with Frequency ^{2,3} :	f ^{1.08} at 0.5 dB/cm/MHz f ^{1.1} at 0.7 dB/cm/MHz
HE Gel Freezing Point:	<0°C
HE Gel Melting Point:	>100°C
Frequency Range ² :	2 - 18 MHz
Speed of Sound:	1540 m/s

Feature	Sono403 SCG	Sono403 SC
Tissue Mimicking Material, Patented Multi-Frequency HE Gel™:	✓	✓
Scanning Surface, Patented Composite Film:	✓	✓
Uniformity Assessments:	✓	✓
Geometry Assessments:	✓	✓
Sensitivity Assessments:	✓	✓
Resolution Assessments:	✓	✓
Depth of Penetration:	✓	✓
Dead Zone Detection:	✓	✓
Harmonic Imaging:	✓	✓
Anechoic Cysts:	✓	✓
Grey Scale Targets:	✓	✓

Accessories

- Precision Transducer Holder
 - Securely holds a transducer in a precise location for reproducible tests over time
 - Fits all Gammex B-Mode & Doppler Flow phantoms
- Padded travel case with shoulder strap



¹ An attenuation coefficient of 0.5 dB/cm/MHz represents healthy human liver tissue and 0.7 dB/cm/MHz represents fatty liver tissue.

² Browne, J., Ramnarine, K., Watson, A., Hoskins, P., Assessment of the Acoustic Properties of Common Tissue-mimicking Test Phantoms. Ultrasound in Medicine and Biology, Vol. 29 (7), pp. 1053-1060, 2003.

³ Near-linear responses of attenuation with frequencies between 2 to 18 MHz support accurate axial resolution and penetration depth representative of human tissue.