

# Elasticity QA Phantoms

## 049 and 049A

- Compatible with shear wave and compression elastography QA applications
- Provides calibrated acoustic targets with defined stiffness values



The Elasticity QA Phantoms support quality assurance for both shear wave and compression elastography systems. Integrated, calibrated targets with known stiffness values relative to the background material are configured with varying stiffness values, size, and depth for comprehensive system performance evaluation.

The Elasticity QA Phantom – Spherical (049) features spherical targets in two diameters positioned at two distinct depths. At each depth, two targets are softer than the background material, and two are stiffer, allowing assessment of relative stiffness discrimination and depth-dependent performance.

The Elasticity QA Phantom – Stepped Cylinder (049A) expands target evaluation capability by incorporating stepped cylindrical targets instead of spherical targets. Each stepped target includes six diameters at the same depth and relative stiffness, enabling assessment of target detectability as a function of lesion size.

### Key Benefits

- Known stiffness values support accurate sonoelastography QA
- Supports dynamic range assessment and system performance monitoring over time
- Suitable for training, demonstrations, and R&D applications
- Includes a carry case

# Elasticity QA Phantoms

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## Specifications

<b>Dimensions</b>	20 x 15 x 10 cm (8" x 6" x 4")
<b>Weight</b>	3 kg (6.6 lbs)
<b>Materials</b>	Zerdine® hydrogels ABS plastic housing Saran laminate membrane
<b>Scanning Surface Area</b>	17 x 10 cm
<b>Zerdine Tissue-Mimicking Material</b>	Speed of sound: 1540 m/s Freezing point: 0°C Melting point: > 100°C Compatible with harmonic imaging
<b>Young's Modulus<sup>1</sup></b>	Background: 18 kPa Lesion Type I: 6 kPa Lesion Type II: 9 kPa Lesion Type III: 36 kPa Lesion Type IV: 70 kPa

<sup>1</sup> Elasticity values vary depending on the measurement system used. Batch sample measurements, obtained using a quasi-static load frame, are provided with each phantom in a certification sheet.

