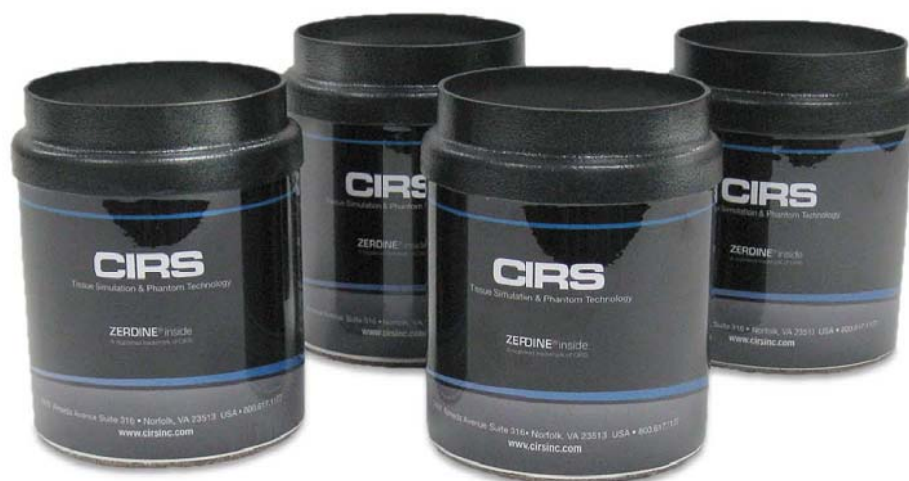


Shear Wave Liver Fibrosis Phantoms

Model 039



ZERDINE[®] Inside
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MEASURE KNOWN TISSUE ELASTICITIES WITH SHEAR WAVE SYSTEMS

The Shear Wave Liver Fibrosis Phantoms provide a set of reference standards for performing quantitative measurements of tissue stiffness. Shear wave elasticity imaging is an emerging biomarker with many possible applications, most prominently for determining the stage of liver fibrosis in a patient without the need for invasive biopsies.¹

Model 039 includes four separate phantoms of varying stiffness: 3, 12, 27, and 48 kPa. The elasticity of the phantoms was chosen based on average tissue elasticity at various stages of liver fibrosis. Stiffness of 3 kPa represents elasticity of healthy tissue, while 48 kPa represents elasticity of tissue with stage-five liver fibrosis. Phantoms can also be manufactured according to user requirements with custom stiffness ranging from 1 to 100 kPa.

Certification of Young's modulus will be provided with each phantom for proof of measurements with a precision of $\pm 4\%$. Young's modulus is tested on batch samples following ASTM standard D575-91 to ensure accurate elasticity. Density will also be measured to allow accurate conversion

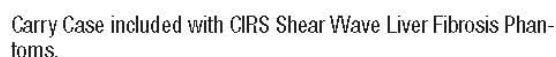
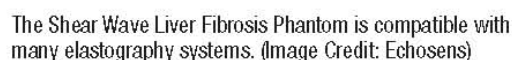
of shear wave speed to shear wave modulus and Young's modulus.

Model 039 comes with a carry case for easy transport and phantom set up.

Features

- Young's modulus ranging from 3 to 48 kPa
- Custom stiffness from 1 to 100 kPa available according to user requirements
- Certification of Young's modulus with each phantom
- Tissue-mimicking material with acoustic properties of human liver

1. T.J. Hall, et al. "RSNA/QIBA: Shear wave speed as a biomarker for liver fibrosis staging." Poster presentation, 2013 IEEE International Ultrasonics Symposium. July 21-25. Prague, Czech Republic.



MODEL 039 INCLUDES

*Young's Modulus tested in batch samples following ASTM standard D575-91 to ensure elasticity measurements within +/- 4%. Measure values will be provided in a certification sheet that comes with each phantom.

NOTE: Phantoms may be purchased separately; single units will not come with carry case.



Computerized Imaging Reference Systems, Inc. has been certified by UL DQS Inc. to **(ISO) 9001:2008**, Certificate Registration No. 10000905-QM08.



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