Innovation Polymers Material Property for Ultrasonic NDT 2016 R2

Sound Transfer - Coupling Media

Our focus is on highly effective sound transfer through the development of acoustic-capable polymers. These new polymers enable coupling of the ultrasonic sensor to the material under test or provides a layer to couple, seal or optimize energy transfer.

- Industrial dry coupling applications
- Novel wheel probe or delay line
- Water box chamber or barriers
- Sensor covers or optimizing layers
- Sensitivity and resolution targets

Property	Aqualene 300	Aqualene 320	ACE 400	ACE 410	Aqualink 100
Hardness, Shore A	58	35	40	42	5
100% modulus, psi	-----	210	220	220	14.9
Tensile strength, psi	120	260	14000	1400	300
Elongation @ break, %	27	140	1200	1200	1100
Tear Str., Die C, pli	-----	20.6	n/a	n/a	50
Attenuation dB/mm @ 5MHz	-0.30	-0.48	-0.99	-1.15	-0.4
Sp.Gr.	0.94	0.94	0.92	0.92	0.87
Acoustic Velocity, m/s	1567	1542	1541	1530	1484
Colour	Clear	Clear	Clear/white	Black	Clear Transparent

Innovation Polymers is ready to make your unique product. Our materials can be customized to achieve success for your demanding inspection requirements. Mist wetting enables minimal couplant application or the material can function dry for carbon fiber layup inspection and other unique applications. Let Innovation Polymers work with your team to achieve your unique inspection solution. Wheels, Delay lines, Probe covers, pads, whatever your application, we will design the tooling for your product.

Innovation Polymers Material Property (Medical) 2016 R2

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Medical Material Table

Custom Properties & Custom Shapes

Innovation Polymers will work with your team to help develop specific required characteristics for the material you need to mimic. Ultrasonic properties, hardness and other unique aspects for a wide range of applications can be achieved through collaborative development.

ACE™, Aqualene™ and Aqualink™ are new polymers designed for specifically for ultrasonic NDT and MEDICAL industries, including tissue mimicking and Phantoms. Aqualene™ is a thermoset elastomer which can be formulated as a 35 Shore A to 60 Shore A hardness depending on the application. ACE™ provides unique characteristics which include excellent toughness and wear features. For high frequency work or area targets (implanted spheres, tubes) are embedded for accurate system calibration, we also introduce fine wire embedded targets. The introduction of varied scattering media and layer characteristics offers a wide range of unique medical applications.

Contact Us

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