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 200	ACE 400	ACE 410
Hardness, Shore A	58	40	40	42
100% modulus, psi	-----	210	220	220
Tensile strength, psi	120	260	14000	1400
Elongation @ break, %	27	140	1200	1200
Tear Str., Die C, pli	-----	20.6	n/a	n/a
Attenuation dB/mm @ 5MHz	-0.35	-0.48	-0.5	-0.77
Sp.Gr.	0.94	0.94	0.92	0.92
Acoustic Velocity, m/s	1578	1542	1600	1543
Colour	Clear	Clear	Clear/white	Black

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.

Together we will seek novel and visionary approaches

Innovation Polymers Material Property (Medical) 2014 R1

Property	Merus 100	Aqualene 200	Aqualene 300	Spectre
Hardness, Shore A	58	40	58	42
100% modulus, psi	110	210	-----	220
Tensile strength, psi	140	260	120	1400
Elongation @ break, %	155	140	27	1200
Tear Str., Die C, pli	32	20.6	-----	n/a
Attenuation dB/mm @ 5MHz	-0.42	-0.48	-0.35	-0.77
Attenuation dB/mm @ 25MHz				
Sp.Gr.	0.94	0.94	0.94	0.92
Acoustic Velocity, m/s	1579	1542	1578	1543
Colour	light tan	Dark tan	clear	Clear

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.

Merus, Aqualene and Spectre are new polymers designed specifically for ultrasonic medical applications, including tissue mimicking. Merus and Aqualene are thermoset elastomers which are soft and flexible. Spectre 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 tissue-mimicking ability.

Contact Us

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