



Models TTP-1 & ETTP-1 Thermal Testing Phantoms



Product Description and Use

The TTP1 and TTP1E are manufactured from a proprietary water-based tissue mimicking material which meets the acoustic and thermal characteristics specified in the above IEC document. As this material is water-based, it is subject to the effects of gradual dehydration. When the phantom is not in use, the container cover should always be tightly in place.

The scan surface of the TTP1 is a proprietary rubber-based tissue mimicking material with a thickness of 1.0-1.5 mm. It primarily serves the purpose of simulating a skin layer over underlying soft tissue and negates the need for using a slab of silicone rubber over the tissue mimicking material as called for in the IEC document. Secondly, the rubber layer seals the tissue mimicking material below and reduces the dehydration rate.

The test conditions and test methods used should be those specified in the IEC document.

After use, a gentle wiping of the TTP1 scan surface with a clean paper towel or Kimwipe should be sufficient to remove any residual coupling gel. Use caution to not push too hard on the scan layer while cleaning and breach its integrity. The TTP1E probe cavity and top surface may be cleaned of coupling gel by gently flushing with clean tap water and allowed to dry.

The TTP1 and TTP1E are designed to be semi-disposable. With reasonable care, they should last several months. Pay particular attention to the edges of the top surface for any indication that the tissue mimicking material is pulling away from the walls of the container, a clear sign of excessive dehydration.

Specifications

Specific heat capacity: $3,500 \pm 500 \text{ J kg}^{-1} \text{ }^\circ\text{K}^{-1}$	Attenuation: $2.5 \pm 1.0 \text{ dB cm}^{-1} @ 5 \text{ MHz} @ 23^\circ\text{C}$
Thermal conductivity: $0.5 \pm 0.1 \text{ W m}^{-1} \text{ }^\circ\text{K}^{-1}$	Speed of Sound: $1537 \text{ m sec}^{-1} @ 23^\circ\text{C}$
Dimensions: Height: 168 mm Oval: 80 175 mm	Weight: 2.3 Kg

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