BTC Analysis - Non-Human Incisional or Material Failure





O Ultimate Pressure - Maximum amount of negative pressure (mmHg or mbar) required to induce failure. A measurement of in-vivo wound strength.

B Laxity - Laxity is the percentage (%) of acute elastic deformation (mm) that occurs with very low pressure or stress, and is defined by a change in the slope of the pressure-deformation or stress-strain curve. Laxity characterizes looseness or slack in the tissue sample. Note: Results are load dependent.

Elastic Deformation - Elastic Deformation (mm) is the amount of deformation obtained up to the point of the maximum pressure. This deformation represents the elastic tissue response to the applied pressure or stress. Note: Results are load dependent.

D Stiffness or Modulus - Modulus (KPa) accounts for the material property of the tissue (independent of shape and size) and is a measure of the stiffness of the material. Modulus is calculated as the slope of the linear part of the stress-strain curve. Stiffness (mmHg/mm) is the mechanical behavior of the structure, including shape, size and material. Stiffness is calculated from the slope of the linear region in the pressure-deformation curve.

Energy Absorption - Energy Absorption (mmHg*mm, or mbar*mm) reflects the entire deformation response, thus depicts the tissue overall compliance or softness. The higher the Energy the more compliant or soft the material. The inverse, lower Energy response demonstrates tissue firmness. Energy Absorption represents the total area beneath the pressure or stress-strain curve.