Tissue Softness Analyzer

**TSA**

Multifunctional Measuring Instrument to assess the Softness, Elasticity and Compressibility of Tissue and Fabrics as well as the Ball Burst Strength, Thickness and Grammage

- Measurement of the softness, elasticity and compressibility of tissue and fabrics as well as the ball burst strength, thickness and grammage
- Assessment of the two-sidedness regarding softness of tissue paper

**Area of Use:**
- production control
- comparison of products
- selection/incoming control of pulp/fibers (hand sheet measurement)
- product optimization
- R&D

**Main Application:**
- base tissue
- tissue handkerchiefs
- tissue towels
- toilet tissue
- facial tissue
- tissue kitchen towels
- fabrics
- non-woven
- leather

**Main User:**
- Manufacturers of Tissue and Fabrics
- Converters of Tissue and Fabrics
- Chemical Suppliers
- Machine builder

Substitution of the subjective quality assessment by an objective measuring method

is a developer and producer of Paper Testing Technology represented worldwide by our sales-network.
### Features

The softness is a fundamental quality parameter of tissue and fabrics. It may be characterized by e.g. smoothness, compressibility, stiffness and “crumpleability”. There are other instruments on the market which are measuring all those single parameters. The results may be linked by complex functions and summarized to one value, which characterizes the subjectively felt softness in a more or less reliable way. However, previous method of evaluating softness is very expensive and not suitable for quality assurance.

The new Tissue Softness Analyzer TSA simultaneously gathers all single relevant parameters which have an influence on the tissue softness. Additionally it is possible to measure the elasticity, compressibility and ball burst strength. Parameters for that values will be automatically calculated by a high-performance PC software. The correlation of the measuring results to the subjective assessment is excellent.

### Example:

![Graph showing the correlation of emtec TSA results to subjective assessment](image)

### Application area
- tissue paper, fabrics, leather, non-woven

### Functions
- Softness
- Elasticity
- Compressibility
- Ball Burst Strength according to DIN EN ISO 12625-9

### Measuring results
- Tissue Softness, Elasticity, Compressibility, Ball Burst Strength

### Advantages
- menu-driven measurement
- integrated measurement of ambient temperature and humidity
- easy handling
- robust construction
- objective measuring method, free from subjective influences
- high reproducibility of the results

### Software EMS
- very user-friendly and easy to operate
- easy handling in quality assurance

### Technical data
- sample dimension: ø 112,8 mm
- dimension of device: 440x190x470xmm (H x W x D)
- weight: 19 kg
- power supply: 230V, 50Hz / 115V, 60Hz