

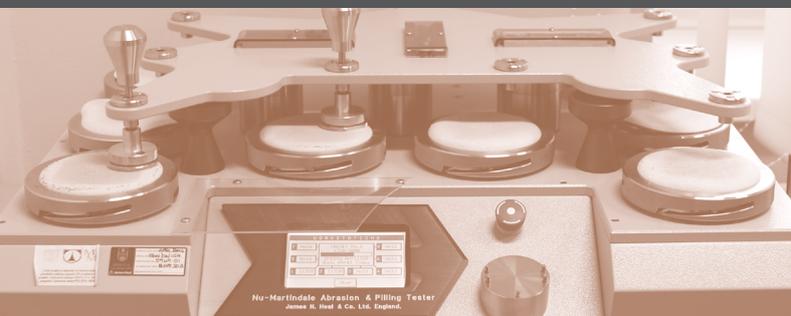
Laboratory of Quality Evaluation

The main objectives and activities

- Production, development and modeling of fibrous structures for special areas of usage,
- Testing structure and quality of linear textiles, surface, 3D textiles and special fibrous structures.

Specialization of the laboratory

- Analysis of internal and external structures of linear and planar fibrous formations and testing their mechanical properties including safety.



Specific devices and outcomes

- Analysis of mass irregularity and defect in strand of roving and staple fiber yarns by capacitive method (Uster Tester 4-SX).
- Evaluation of hairiness of staple fiber yarns (G Zweigle 567).
- Evaluation and characterization of silk clothing (TST2 Lenzing).
- Evaluation of resistance of textile materials (woven, knitted and nonwoven textiles), burst ball and cut (Testometric M350-10CT).
- Measurement of resistance of textile materials (Woven, Knits and nonwoven) in the airflow (Burst tester EC 37).
- Measurement of speed of sound passing through textile material and determination of acoustic properties as dynamic modulus of fiber and planar textiles (DMT PPM5R Lawson Hemphill).
- Measurement of dynamic mechanical properties of silk yarns (stretching yarn, friction yarn on yarn, yarn on pin, volume unevenness, number of defects, diameter and hairiness of yarn (CTT Lawson Hemphill)).
- Biaxial stress testing equipment with evaluation of sample thickness change and test video recording.
- Evaluation of mechanical-physical properties at the level of μN by universal device for testing.
- Evaluation of surface resistance of textiles due to abrasion and fabric pilling according to DIN EN ISO 12947-1, 2, 3, 4 on the unit Martindale M235
- Analysis of pilling effect of fabric on M227 ICI Pilling & Snagging Tester, Taber Wear and Rotary Abrasion Tester.
- Analysis of trace concentrations of heavy elements using the polymer matrix method (LIBS).
- Testing of dusting textiles - Characterization and Analysis of dust emitted from textiles.
- Measuring bending rigidity of yarns, fabrics and knitweaves (TH-7).
- Analysis of pH measurement, determination of color fastness, washing process management, residues and conductivity analysis (MORAPEX).
- Analysis of aging through simulation of weather conditions (M029 UVCON, XENOTEST Alfa).