QUMA

INSTRUMENT FOR MEASURING RELAXATION OF FOILS AND PAPER

QUMAT® - 628

A CONTACTLESS MEASURING METHOD

· Relaxation measurement
· Defined UNLOADING and LOADING of the sample
· Designed and built according to DIN EN 61340-2-1 (2016-07)

FEATURES

· Reproducible and fast measurements
· Recording of the charging and discharging curve of the sample
· Easy handling
· Measuring size 10 x 10 cm^2 according to DIN/EN standard
· Evaluation and storage of sample data
· Comparison of results within the software

QUMAT®-628

STATICS

QUMA

SYSTEM DESCRIPTION

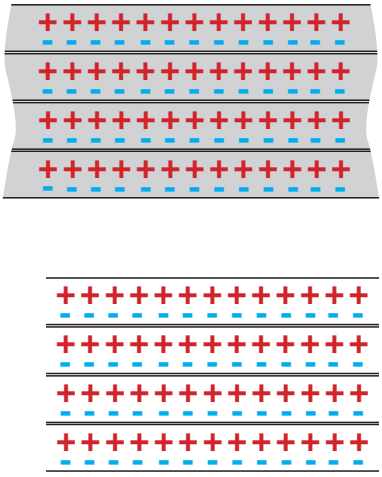
The QUMAT® - 628 is an instrument for measuring the relaxation of films/paper (all materials up to 3 mm thickness). Products are often multi-layered. It is obvious that a composite of films, for example, cannot be evaluated by surface resistivity. For high-resistance products, it is impossible to extract additional charge dissipation from the product (even for single-pass products). This is usually the cause of static problems.

Measuring technique:

It is not possible to abstract a sample without statically load and bring it to the instrument! Our work clothes, shoes, the floor, the hermetic,.... everything affects the sampling. For this reason, the work of the QUMAT®- 628 starts always with discharging the sample. Only this ensures a reproducible measuring.
The static quality of a product is being measured by its Relaxation; velocity of decrease (the faster the decrease, the better the product). Measuring takes typically 10-300 seconds and is being recorded with a PC (Excel program).

Principle of operation

A sample is cut out and fixed in a frame (measuring area 10 x10 cm^2). The frame is placed on the QUMAT® 628 and the measurement can be started. The frame automatically falls into the analyser and is automatically unloaded, defined loaded and the relaxation (DECREASE OF CHARGE) is measured, typically 10-300 seconds.
Finally, the sample is ejected automatically.
With a PC, you can record the discharge curve and evaluate the samples (the measurement takes about 10-300 seconds). The discharge curve allows conclusions to be drawn: the faster the discharge, the better the sample.



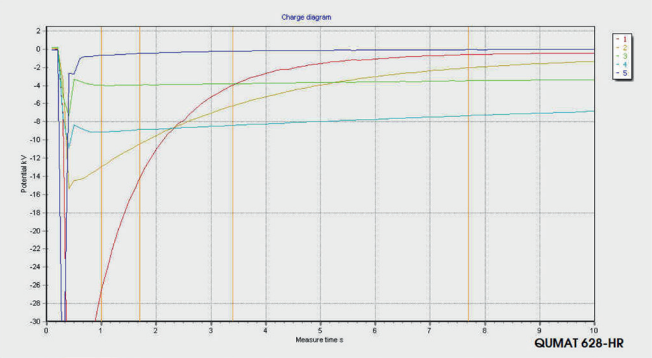
Scheme of a multilayer sample

Features of the QUMAT®- 628:

- Reproducible measurements
- Discharge and charge of each sample
- Automatic calculation of the t50 time
- Small sample size of 12 x 12 cm^2 (measuring area: 10 x 10 cm^2)
- Fast (normal measurement process takes 10-300 sec.)
- Acc. to ISO 900X for use

Technical Data:

- Effective range field strength 0 - 400 kV/m
  (with an Influence Electro Field Meter)
- Digital display of field strength
- Temperature measurement and documentation
- Measurement and documentation of relative humidity
- Communication with PC via Ethernet (RJ45 cable)
- PC driver for WINDOWS® ≥ 10
- Documentation as „xml“ file
- Power supply 220/235V 50Hz 300VA
- WxDxH 350 x 280 x 560 mm^3; 19 kg
- Order No.: Q628.100



Example of some measurements with QUMAT®- 628
of different foils with variable electrostatic measurements

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