LUM

The NEXT STEP® in Dispersion Analysis

INNOVATIONSPREISTRÄGER BERLIN BRANDENBURG 2012

Adhesion Analyser

LUMiFrac®

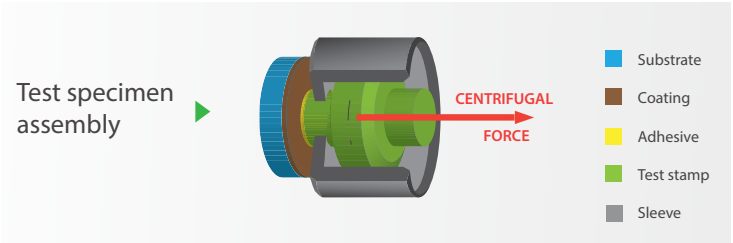
The New Standard in Adhesion and Cohesion Testing.

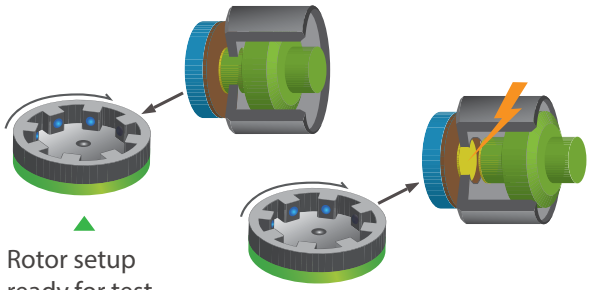
Adhesive & bonding strengths | Coating & surface properties

Measurement Principle

Measure 8 samples simultaneously.

- The centrifugal force is applied to the sample assemblies due to rotation.
- Detachment of the test stamp (moment of rupture) is automatically detected.
- A position-coded IR-signal and the current rotor speed are transmitted.
- The breaking load and tensile strength are calculated by SEPView®.

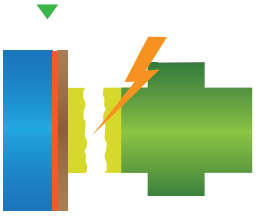




Rotor setup ready for test

Test specimen when rupture occurs
(position-coded data is transmitted)

Failure pattern



adhesive failure

interlayer delamination

multilayer delamination

cohesive failure

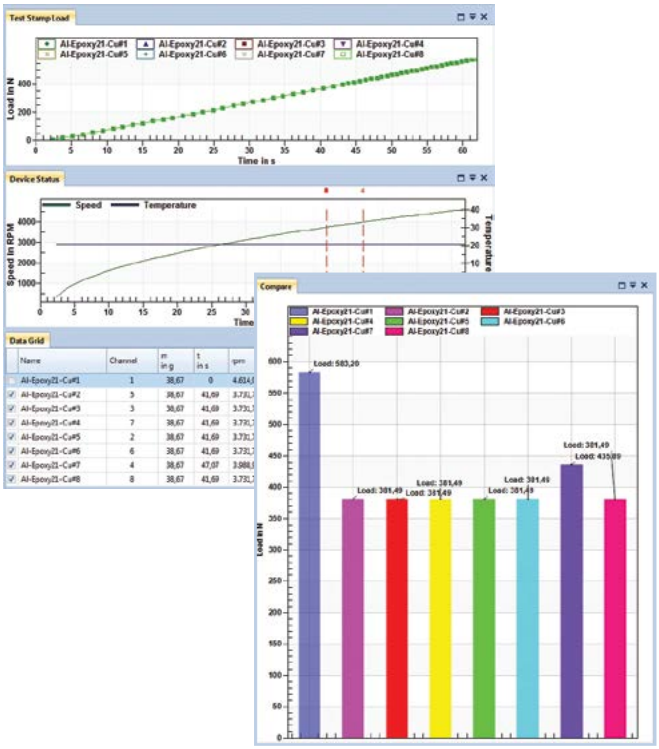
Use & benefits

- Easy preparation of your test specimen
- Up to 8 samples are analysed under identical conditions
- No sample clamping at all - simply insert and start
- Variable testing speeds
- Flexible load cycling
- Wide range of test forces (0.1 N up to 6.5 kN)
- Testing under various temperatures
- Cost-saving multi-use of test stamps
- Meets ISO 4624 and DIN EN 15870

runs on

SEPView®

your window to dispersion analysis



- Windows 7 based with Ribbon User Interface.
- Plug & play, pack & go.
- Simultaneous analysis for up to 24 samples in real-time.
- Full SOP concept.
  (Creation, capture, data analysis)
- Allows to save fracture pattern.
- Windows Explorer based data management.
- Comprehensive database security and full audit-log.
- Individual user customization.
- Complies with 21 CFR Part 11.

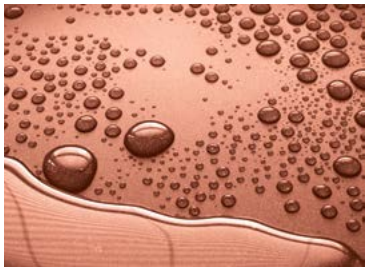
Applications

Standardised short time measurements for QC.

Testing of tensile strength of bonded joints:
- Cyanoacrylates
- Epoxy adhesives
- Polyurethanes
- ...

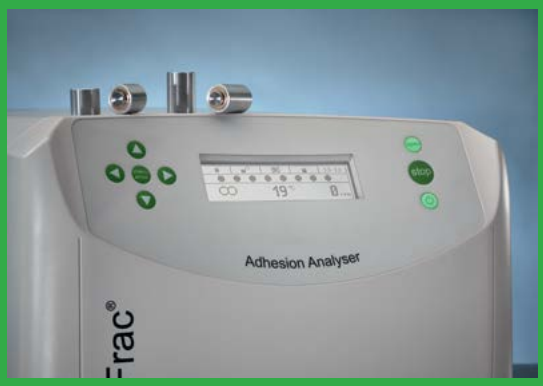
Determination of adhesive strength of coatings:
- Anti-corrosion coatings
- Decorative coatings
- Metallized polymers
- Optical coatings
- ...

Long-term fatigue testing:
- Alternating loads
- Different temperatures



Specifications

Load range	0.1 N–6.5 kN
Tensile strength	up to 80 MPa
Measurement time	1 min up to 99 h, depending on task and objective
Conformity	ISO 4624; DIN EN 15870
Samples	up to 8 simultaneously
Sample dimension	max. 30 mm x 30 mm x >1 mm
Adherent area	diameter 7 mm, 10 mm and customized
Test stamp material	metal or non-metal
Test stamp weight	4.1 g - 38.7 g (W/Cu up to ca. 58 g)
Dimensions (W x H x D)	38 x 64 x 29.6 cm
Weight	56 kg, desktop
Rotor speed	100–13,000 rpm
Temperature control	–11°C to +40 °C
Data interface	USB
Power supply	100 V, 120 V, 230 V; 50/60 Hz
Power consumption	max. 1050 W



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Subject to change.