Technical specifications and details

microDAC®- Messsystem consits of:

- **Camera**
  5 MPX camera, telecentric lenses and ring light (pre-assembled)

- **Image capturing system VEDDAC cam and measuring software VEDDAC 7**
  System requirements: Standard PC with Windows 7/8.1/10 (x64), GigE interface for camera

- **Software interface Condor Sigma - VEDDAC cam** in cooperation with XYZTEC BV

Chemnitzer Werkstoffmechanik GmbH

Stadlerstraße 14a
09126 Chemnitz
Germany

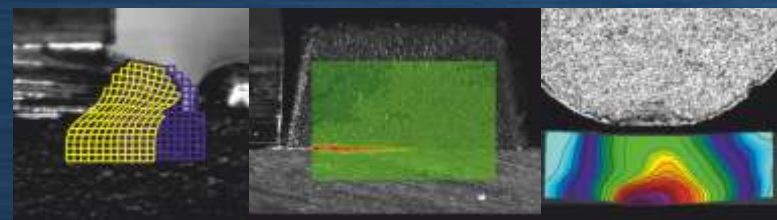
phone: +49 371 33562 640
fax: +49 371 33562 641
email: microDAC@cwm-chemnitz.de
URL: www.cwm-chemnitz.de

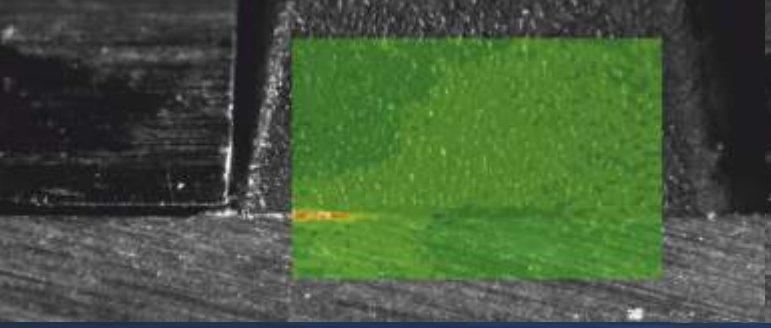
Chemnitzer
Werkstoffmechanik GmbH

www.cwm-chemnitz.de

microDAC®

Measuring system for the analysis of motions I deformations I strains in shear or bending tests





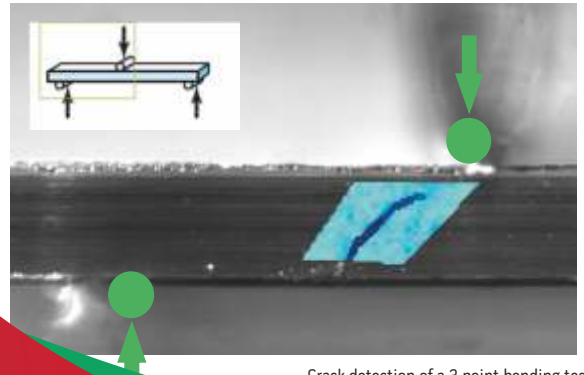
microDAC® for Condor Sigma

microDAC® - The measuring software

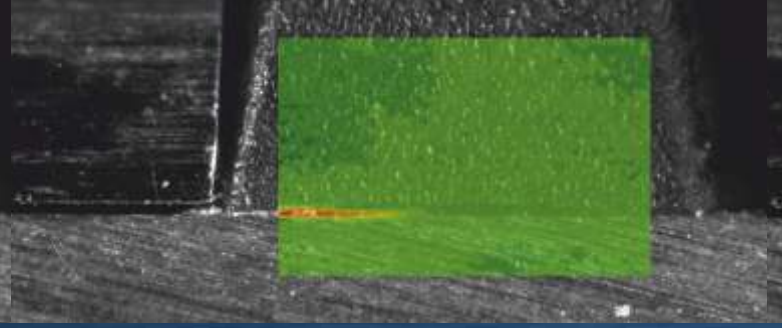
microDAC® is a camera-based high-resolution measuring system with which images of your shear, creep or bending test can be captured time-controlled with the Condor Sigma. The image sequences can be used for an initial visual evaluation of your test and they are available after the test for a quantitative displacement or deformation analysis with the measuring software VEDDAC 7.

Interface to Condor Sigma

The camera module in the microDAC®- measuring system can be mechanically adapted to the Condor Sigma. Image acquisition in the microDAC®- system starts and stops simultaneously with the Condor Sigma test via a software interface. This makes it possible to assign the images and thus the displacement and elongation values to the force values over time.



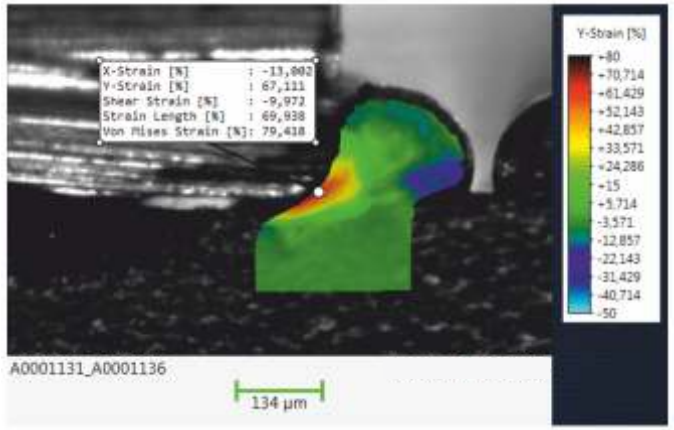
Crack detection of a 3 point bending test



VEDDAC 7 - Measuring software for motion and strain analysis

With VEDDAC 7, the images captured with microDAC® of your shear or bending test can be evaluated in post-processing. VEDDAC 7 is an universal and flexible software for the analysis of motion, deformation and surface changes based on 2D image correlation (DIC). In particular, in-plane displacements and local strain fields on objects are determined directly on the specimen. You define the measuring points in the image individually and can thus carry out displacement, deformation or strain measurements for local areas on the specimen. With VEDDAC 7, even large image sequences can be evaluated conveniently and efficiently.

The stand-alone software tool VEDDAC 7 not only processes images from our microDAC®- measuring system, but also enables the analysis of images from other camera systems and image sources (scanning electron microscopy - SEM, X-ray CT, ...).

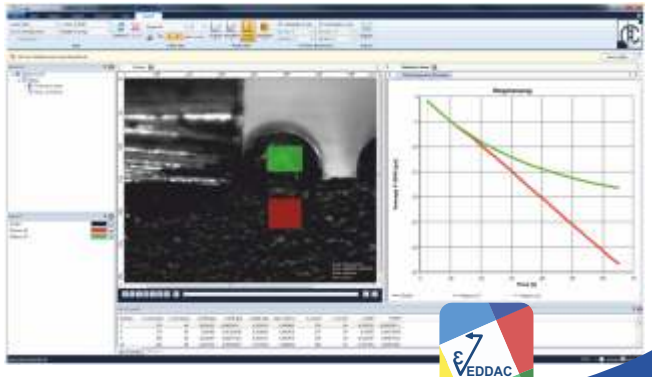


Application

Benefit from the microDAC®- measuring system at Condor Sigma for:

- Local displacement measurements directly on the sample
- Measurements of the relative displacement between two material areas in the shear / creep test
- Analysis of local material deformations
- Characterization of interface adhesion
- Detection and tracking of cracks
- Measurements of max. deflection and residual deformation after relief in the bending test
- Visual assessment of your test
- and so on

Image sources:
XYZTEC BV Günthersdorf
Infineon Technologies AG Neubiberg
Fraunhofer ENAS Chemnitz



Displacement measurment in local regions of a shear test